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Long Duration Exposure Facility Experiment M0003 Deintegration Observation Database

Prepared by

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This technical report has been reviewed and is approved for publication. Publication of this report does not constitute Air Force approval of the report's findings or conclusions. It is published only for the exchange and stimulation of ideas.

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The four trays of the M0003 materials experiment on LDEF contained over 1600 samples from 20 subexperiments. The complete sample complement represented a broad range of materials, including thin film optical coatings, paints, polymer sheets and tape, adhesives and composites, for use in various spacecraft applications, including thermal control, structures, optics, and solar power. Since some subexperiments included duplicate samples exposed on the leading and trailing edge trays for 9-week, 19-week, 40-week, and 69-month durations, comparisons provided a valuable time history of degradation. During the deintegration of the subexperiments from the M0003 trays, each sample was examined using bright field, dark field, and Nomarski light microscopy techniques. Over 3,000 color macrographs and photomicrographs were made of the condition of the M0003 trays and the individual samples. Records of the condition of the samples, photographic records and all available references of publications on postflight analyses on each sample were collected in a computer database (4th Dimension™ for the Macintosh computer). Upon written request, the database records and photographs for specific samples may be obtained from The Aerospace Corporation Archives. Copies of the electronic database are available on floppy disk by request, as well. Directions for requesting the records, photographs, and database copies are given in this report.

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SUMMARY

This report summarizes the extensive photographic and electronic observation database compiled during the disassembly of The Aerospace Corporation M0003 Materials Experiment that was aboard the NASA Long Duration Exposure Facility (LDEF) spacecraft. The LDEF was deployed by Space Shuttle into low Earth orbit (LEO) in April 1984, and was retrieved in January 1990. The M0003 Experiment contained more than 1600 material test samples from various organizations, including the Aerospace Laboratories, DoD Laboratories, and other government contractors . The M0003 test samples included a variety of current or baseline spacecraft materials such as thermal control coatings, laser optics, polymer composites, structural materials, laser communication components, dosimeters, antenna materials, contamination monitors, solar cells, fiber optics, and electronic piece parts.

This report describes the M0003 experiment and the deintegration effort at The Aerospace Corporation. It gives an overview of the contents of the M0003 sample database in diagrammatic form. In addition, the contents of the database are condensed in two tables in the two appendixes to this report: one providing a list of the sample complement by Database Number with an abbreviated description of the samples and their post-flight condition, and the second, giving the sample complement sorted by spacecraft application. The M0003 Deintegration Observation Database is available to requestors on a 3 1/2 in. floppy disk (in 4th Dimension™ for the Macintosh format) for more complete examination of the contents.

Through its Corporate Archives, The Aerospace Corporation is distributing individual database records and prints of photographs taken to document the post-flight condition of the M0003 trays and samples. The records and photographs of the test samples are valuable because they are of spacecraft materials that were retrieved and physically examined after extended exposure in the natural space environment, a very rare event. A few examples of the over 3,000 color photographs (although in black and white) and an example of an observation record are shown in this report. Information on how to order copies of the photographs and records or to request disk copies of the M0003 Deintegration Database is also provided.

PREFACE

The authors express their sincere appreciation to the Space Test Program (SMC/CUL) for funding the M0003 deintegration and to Lt. Col. M. Obal of the Strategic Defense Initiative Organization SDIO/TNI, Materials and Structures, and Lt. M. Jones, W. Ward, and K. Davidson of Wright Laboratory Materials Directorate for funding the database portion of this work. We would like to thank the NASA Langley LDEF Science Office for their unstinting support to our project. We also wish to acknowledge the contribution of the following individuals to this effort: Col. J. Armstrong, R. Bachus, D. H. Barker, G. W. Boyd, R. A. Brose, W. C. Burns, W. H. Childs, L. G. Clark, A. F. DiGiacomo, L. Fishman, E. L. Galvin, C. S. Hemminger, Capt. D. Johnson, J. L. Jones, H. K. A. Kan, W. H. Kinard, C. Kiser, F. Knight, A. Levine, B. Lightner, N. Marquez, G. D. Martin, L. A. Okada, R. O'Neal, K. W. Paschen, C. Rochester, H. T. Sampson, T. A. Stoner, W. K. Stuckey, T. K. Tessensohn, G. A. To, H. E. Wang, D. B. Wisehart, and J. C. Uht.

CONTENTS

SUMMARY 1

PREFACE 3

INTRODUCTION 7

II. THE AEROSPACE CORPORATION M0003 EXPERIMENT 9

A. M0003 Trays and Samples 9

B. Environment Exposure Control Canisters 10

III. THE M0003 EXPERIMENT DEINTEGRATION 11

A. Inspection At Kennedy Space Center 11

B Disassembly At The Aerospace Corporation 11

IV. THE M0003 DATABASE 13

A. Observation and Photographic Documentation 13

B. Data and Photograph Retrieval from the Database 13

REFERENCES 15

APPENDIX A 35

APPENDIX B 67

AEROSPACE FORM 5365: Order Form for M0003 Deintegration Database 97

FIGURES

1. The LDEF in space just after deployment by the Space Shuttle Columbia (April 1984) 17

2. Diagram of LDEF showing row and ring nomenclature 18

3. Diagram of optical samples in database 19

4. Diagram of structural samples in database. 19

5. Diagram of thermal control samples in database 20

6. Diagram of polymeric samples in database 20

7. Diagram of solar power materials in database 21
8. Post-flight photograph of the leading edge 3-in. tray, D9 (L3) 22
9. Diagram of sample layout on leading edge 3-in. tray, D9 (L3) 23
10. Post-flight photograph of the trailing edge 3-in. tray, D3 (T3) 24
11. Diagram of sample layout on trailing edge 3-in. tray, D3 (T3) 25
12. Post-flight photograph of the leading edge 6-in. tray, D8 (L6) 26
13. Diagram of sample layout of the leading edge 6-in. tray, D8 (L6) 27
14. Post-flight photograph of the trailing edge 6-in. tray, D4 (T6) 28
15. Diagram of sample layout of the trailing edge 6-in. tray, D4 (T6) 29
16. Post-flight photograph of the open leading edge canister (Tray D8 , Module VI) 30
17. Diagram of sample layout of the open trailing edge canister (Tray D8 , Module VI) 30
18. Post-flight photograph of the open trailing canister (Tray D4, Module VI) 31
19. Diagram of sample layout of the open trailing edge canister (Tray D4, Module VI) 31
20. View of two hypervelocity particle impacts to the Chemglaze A-276-painted sunshield on leading edge tray D4 (L6). 32
21. Diagram of M0003 database organization 32
22. Examples of photographs that can be ordered from archives 33
23. Example of hard copy database observation record 34

TABLES

I. Summary of M0003 Subexperiments 16
II. Environments Experienced by Samples on the M0003 Trays 18

I. INTRODUCTION

In 1990, after extended exposure to the space environment, the NASA Long Duration Exposure Facility (LDEF) was retrieved from low Earth orbit (LEO) by the Shuttle Columbia. The LDEF, shown in space just after deployment in Figure 1, is a 12-sided, 30-ft. long, 14-ft. diameter, unmanned spacecraft. It was deployed by the Space Shuttle Challenger into a near circular orbit at 476 km altitude, 28.5° inclination, on 7 April 1984. Originally intended for an 11 month stay in space, a backlog in the NASA launch schedule delayed the LDEF recovery until 69 months had elapsed. LDEF was retrieved in a decaying orbit at 332 km. During the 69 months exposure, materials on the LDEF were subjected to ~12,000 hours of solar UV, 32,422 thermal vacuum cycles, an electron dose of 2.5×10^5 Rads, a proton dose of 1.6×10^3 Rads, and thousands of micrometeoroid and space debris impacts.

The LDEF was gravity gradient-stabilized and therefore maintained a constant orientation with respect to the velocity vector on orbit. Only those experiments on the side of the spacecraft facing into the velocity vector (leading edge) received a significant atomic oxygen dose (maximum 9×10^{21} atoms/cm^2). Atomic oxygen effects often overshadowed or completely removed the damage due to UV exposure on leading edge materials. The leading edge experiments were impacted by space debris and micrometeoroid particles by an order of magnitude more than the experiments on the wake side (trailing edge) of LDEF. The largest crater produced by hypervelocity impact was 5.25 mm in diameter and was found on structural hardware on the spaceward-facing end of LDEF.

II. THE AEROSPACE CORPORATION M0003 EXPERIMENT

One of 57 experiments flown on the 86 experiment-holding trays arrayed around the LDEF, M0003 was the most comprehensive materials experiment. It occupied four of the experiment trays. The M0003 experiment, planned and integrated by The Aerospace Corporation Mechanics and Materials Technology Center, was designed to study the effects of the space environment on 1978 current and developmental spacecraft materials. M0003 was a collection of 20 subexperiments from The Aerospace Corporation laboratories, Air Force and Navy laboratories, and Department of Defense contractors, and was fielded under the sponsorship of The Aerospace Corporation Mission Oriented Investigation and Experimentation (MOIE) program, the Air Force Space and Missile Systems Center (then SAMSO) and the Space Test Program. The compilation of the deintegration observation database was funded in part by The Aerospace Corporation MOIE program and the Strategic Defense Initiative Organization (SDIO) with Wright Laboratory through the SDIO Space Environmental Effects Program. The M0003 subexperiments, each with the current point of contact, are summarized in Table I.

A. M0003 TRAYS AND SAMPLES

The M0003 hardware consisted of four peripheral trays, two experiment power and data systems (EPDS), two environment exposure control canisters (EECC), and several Li/SO_2 batteries to satisfy power requirements. The experiment was equipped to record temperature, strain, quartz crystal microbalance (QCM) frequency, solar cell output, fiber optics output, circuit interrogation, and various data system parameters. The trays were flown in pairs; one pair consisting of a 6-inch deep tray (carrying an EPDS and a canister) that was connected by wiring harness to a 3-inch deep tray (carrying mostly sample coupons). One tray pair was located on the LDEF leading edge and a similar pair was located on the trailing edge. Aerospace designated the trays as "L3", "L6", "T3", and "T6", according to the tray depth and leading or trailing edge location. Later, NASA assigned the trays to an exact location on the LDEF and adopted a nomenclature that designated the trays according to their row and ring location (shown in the schematic in Figure 2). Thereafter, the trays were known as "D9" (L3), "D8" (L6), "D3" (T3), and "D4" (T6). The Aerospace tray designations had already been incorporated into a unique identification code that the M0003 integrators had assigned to each sample. The code was used extensively in the preflight coordination and planning documentation for the M0003 experiment and could not easily be changed thereafter.

The design of the trays was modular; a system that allowed samples to be thermally coupled or decoupled from the tray and the LDEF structure. Each tray had six modules, designated by Roman Numerals I through VI. Most test samples were mounted on black-anodized aluminum hardware plates on the modules. Many samples were apertured, therefore, exposed versus unexposed portions of their surface could be compared. The samples on the M0003 trays included a variety of paints, coatings, laser optics, composite structural materials, laser communication components, dosimeters, antenna materials, contamination monitors, solar cells, fiber optics, and electronic piece parts. Nearly all of the samples can be informally grouped into five material types: thermal control, polymeric, optical, structural, and solar power materials. Figures 3 through 7 show diagrams delineating the M0003 sample complement by these types. Post-flight photographs of the four trays before deintegration of the samples and maps showing the layout of the samples on the modules are presented in Figures 8 through 15. Figures 16 through 19 show post-flight photographs of the open canisters with

sample maps. Preflight photos are available for all four trays and the open canisters loaded with the samples, but are not included in this report. These photographs are available in black and white or in color.

Most M0003 subexperiments included samples that were exposed for 69 months duration on at least one of the four trays and many subexperiments contained duplicate sample sets on the leading and trailing edge trays. A few subexperiments included sets in the canisters as well. Some subexperiments also contained a set of flight control samples that were mounted within the modules, and therefore were not directly exposed to the space environment.

For the 69-month duration of the LDEF exposure in LEO, the four trays of samples experienced somewhat different environments, depending on their location on LDEF (shown in Table II). Measurements made following LDEF retrieval revealed that, on orbit, the vehicle had been oriented so that Row 9 was 8° off normal to the spacecraft velocity vector (Refs. 1 and 2). The solar exposure values in the table are combined direct sun and earth-reflected radiation (Ref. 3). All trays on LDEF experienced the same number of thermal vacuum cycles, but temperature ranges varied, depending on the particular thermal control design of each experiment. Temperature monitoring devices showed a temperature range of -50 °C to 120 °C at the extremes. Most materials experienced more moderate temperature cycling. Materials on the leading edge trays, D8 and D9, were struck by an order of magnitude more hypervelocity particles than impacted the trailing edge trays, D3 and D4 (Refs. 4 and 5). The largest diameter hypervelocity particle-produced crater on M0003, shown in Figure 20, was a 2.5 mm dia. puncture through the Chemglaze A-276-coated, 40 mil-thick aluminum sunshield covering the EPDS on the D8 tray.

B. ENVIRONMENT EXPOSURE CONTROL CANISTERS

The canisters on trays D4 (T6) and D8 (L6) were closed (O-ring seals) preflight and were programmed to open in three stages to obtain different intervals of exposure on certain materials. Two weeks after the LDEF deployment, the canisters opened to expose a large (~3/4 area) of specimens. The next canister stepped movement occurred approximately 23 weeks after deployment and exposed an additional row of samples (~1/8 additional area). The final canister stepped movement was at approximately 33 weeks and exposed the last row of samples (1/8 area) by opening to the canister's fullest extension. The canister drawer returned to the completely closed position at 42 weeks after initial opening and remained closed during the remainder of the LDEF mission. Thus, varying exposure times of 9, 19, and 40 weeks were obtained for some samples in addition to the full mission exposure of 69 months for duplicate samples on the other M0003 trays. The canisters were opened in the clean room at Aerospace roughly 51/2 months after LDEF retrieval. LDEF special investigation group (SIG) personnel were present during this event and assisted in sampling the canister gases and in helium leak testing of the seals. The canisters had lost vacuum and were both essentially at atmospheric pressure when opened; some leakage of the front seals was detected.

III. THE M0003 EXPERIMENT DEINTEGRATION

As Principal Investigator for the M0003 experiment, The Aerospace Corporation Mechanics and Materials Technology Center was charged by the Space Test Program with documentation of the handling and disassembly of the M0003 experimental trays and with providing support to the subexperimenters. The support included full photographic documentation of the trays, modules, and quarter-modules from the earliest stages of retrieval through the complete deintegration of the trays, photographic documentation of the condition of the individual samples, packaging and return of the samples, and providing flight data to the subexperimenters. The deintegration tasks were documented in a relational computer database, 4th Dimension™ for the Macintosh computer, as the disassembly proceeded.

A. INSPECTION AT KENNEDY SPACE CENTER

The deintegration began with inspection of the M0003 trays at Kennedy Space Center after the removal of LDEF from the payload bay of the Shuttle Columbia to the Spacecraft Assembly and Encapsulation Facility II clean room at Kennedy. Observations were recorded and NASA photographic surveys were made to document the condition of the trays and samples following their reintroduction into the earth environment (air, humidity, gravity, etc.). The condition of flight control samples and the samples in the canisters could not be recorded as they were not accessible for inspection. Following the photographic surveys, Experiment M0002, which occupied Module VI on both D3 and D9, was removed from the trays before they were shipped to Aerospace.

B. DISASSEMBLY AT THE AEROSPACE CORPORATION

The four M0003 trays were shipped by air freight to The Aerospace Corporation and unpacked and disassembled in a class 10,000 clean room facility. Of the over 1600 samples on the trays, 1275 were individually examined at Aerospace. Boeing Aerospace had two subexperiments that occupied entire modules (Module V on D3 and Module V on D9). These subexperiments were not disassembled at Aerospace.

As test samples were removed from the other modules, they were individually examined by optical microscopy and photographed, preserving the orientation of the samples as mounted on the LDEF. Many of the samples experienced space environment-induced damage such as crazing, surface roughening, discoloration, erosion, contamination staining, and hypervelocity impact crater formation. Not all samples exhibited discernible changes, however. Observations of the condition of the samples were made by a single examiner who maintained consistent criteria for the qualitative descriptions of all of the M0003 samples in the visual inspection and in the optical microscopy examination. Important effects were photographed using optical microscopy at magnifications from 3X to 1000X. A Wild-Heerbrug stereomacroscope and a Zeiss Axioplan Pol research microscope were used for the examinations. Bright-field, dark-field, and Nomarski differential interference contrast microscopy techniques were used in the examinations. The observations of the condition of the samples were entered in real time into the computer database.

The objective of the microscopy examination of the M0003 materials samples was to provide the subexperimenters with a quick-look summary of effects observed on their samples that could assist them in planning their post-flight investigations.. Another objective of the microscopy exami-

nation was to provide a record of the post-flight condition of all samples in the event that some subexperiments were not claimed by the original investigators. The observations made in the microscopy examination must be considered preliminary as this survey was only the first step in performing detailed analysis on the materials. In-depth analysis of the effects of space exposure on the samples was the prerogative of the subexperimenters and was not the role of the examiner or the deintegration team.

IV. THE M0003 DATABASE

A. OBSERVATION AND PHOTOGRAPHIC DOCUMENTATION

In the deintegration task, all M0003 samples were given a simple Database Number that corresponded to the more complex Aerospace Sample Identification Code permanently assigned to each sample in the preflight documentation. All entries into the database were keyed on these two identifiers, as illustrated in Figure 21. The Database Number in the example shown is 73. The Aerospace Sample Identification Code contains the M0003 tray location for that sample, the Roman numeral of the module on which it was mounted, its subexperiment number, the sample location number on the module, and the sample designation given it by the subexperimenter. In the example shown, the sample, L3II-7-65-10, is a specimen that was flown on tray L3, the leading edge 3-in. deep tray (D9) on Module II. It was part of subexperiment 7 and occupied sample position #65 on Module II (see Figure 9). It was designated as "10" by the principal investigator of the subexperiment. Either the Database Number or the Sample Identification Code can be used to retrieve the sample record which contains information identifying this sample as a ZnS optical coating on a fused silica substrate. The physical dimensions of the sample, the post-flight observations, and the address of the current point of contact are also given in the record. The photographic portion of the database is for the use of the Corporate Archives. It contains the data on the number and type of photographs taken of the individual sample as well as the conditions (lighting, magnification, etc.).

Over 3,000 macrographs and photomicrographs were made to document the condition of the M0003 trays and the individual samples. Overall photographs of the trays, modules, and quarter-modules, (front and back) were shot with large format print film in color and black and white. The post-flight tray photographs in this report (Figures 8, 10, 12, and 14) are examples of such photographs. As individual samples were dismounted from the modules, the underlying tiers of the module hardware were photo-documented to display their condition. In addition, photographs of leading and trailing edge module hardware placed side-by-side were made for visual comparison of contamination staining, erosion, discoloration, etc. Photomicrographs made during the optical microscopy examination were recorded on high-resolution 35 mm color print film. The prints of Database Number 73 in Figure 22 are examples of the types of photographs made to document the condition of the samples. Not every sample was photographed in this detail. The observation record for this sample is shown in Figure 23. This sample is a ZnS optical thin-film coating on a fused silica substrate. The ZnS coating buckled and probably flaked during the 69 months of exposure to the space environment. In addition, minute ring-like features were observed on the buckled surface at high (200X) magnification. Photographic prints and the accompanying observation records can be requested for particular samples (using the Database Number or Sample Identification Code) from the Aerospace Corporation Corporate Archives.

B. OBTAINING DATA AND PHOTOGRAPHS

The contents of the M0003 Deintegration Observation Record Database are condensed in two tables in the Appendix to this report. One table lists the sample complement by Database Number and gives a sample description and a brief description of its post-flight condition for each. The second table gives the same sample list sorted by spacecraft application. Many samples fall into several application categories. These tables can be used to identify samples of interest. Someone interested

in obtaining photographs of materials that show specific effects, i.e., graphite epoxy composites that have impact craters, could survey the description and post-flight condition columns in the first table to find many examples of such materials that are "cratered." Someone interested in adhesives used in bonding thermal control materials on the other hand, could look through the applications table to find thermal control materials that also were listed as adhesives. The Database Number of samples of interest could be noted and then consulting the first table using the Database Number, the description of the samples and their post-flight condition could be found. The location of the samples, leading edge or trailing edge, could be determined from the Sample Identification Code of each. If photograph prints and hard-copy records were desired, the Database Numbers could be entered on the Aerospace Form to request all photographs and records pertaining to those particular samples.

In addition to sample photographs and records and the condensed tables in this report, the entire M0003 Deintegration Observation Record Database is available to requesters on a 1.4 MB (HD) floppy disk in Macintosh 4th Dimension™ format. The database was streamlined to fit on the disk by omitting the photographic portion of the database. A user instruction text file is provided on the disk. The text file contains an explanation of the criteria used by the examiner in compiling the deintegration observations on the samples. The database structure file contains various layouts for searching through the contents of the database data file by Database Number, Sample Identification Code, or by Spacecraft Application. Searches may also be made by material, damage effects, categories, or text strings. Records in the data file include the dimensions of the samples, the descriptions of the composition and construction of the samples, the observations made at Kennedy Space Center, the deintegration observations, and the current subexperiment contacts for additional information on the samples (also publication lists, when available).

The Aerospace Corporate Archives maintains a copy of the complete database to coordinate requests for photographs of specific samples. Aerospace Form 5365 is provided at the end of this report to facilitate requests. Requests should be sent to the Aerospace Corporate Archives, P. O. Box 92957, Mail Station M2/326, Los Angeles, CA 90009-2957, phone (310) 336-5319; FAX (310) 336-5912. The requester should be as specific as possible in stating the type of information desired (e.g., color prints of full trays, black and white photographs of certain modules, color micrographs of a specific sample, and data records). This service will be provided as long as resources allow.

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5. M. J. Meshishnek, S. R. Gyetvay, K. W. Paschen, and J. M. Coggi, *LDEF Experiment M0003 Meteoroid and Debris Survey*, Aerospace Report No. TR-92(2935)-12, The Aerospace Corporation, El Segundo, CA (1993)

Table I. Summary of M0003 Subexperiments.

Subexperiment number	Scope	Subexperiment Point of Contact	Organization/ Address
-1	Radar camouflage materials and electro-optical signature coatings	Charles Hurley	Univ. of Dayton Research Inst. 300 College Park Dayton, OH 45469-0001
-2	Laser optics	Linda De Hainaut	Phillips Lab/LIDA Kirtland AFB, NM 87117-6008
-3	Structural materials	Charles Miglionico	Phillips Lab/PL/VTSI Kirtland AFB, NM 87117-6008
-4	Solar power components	Terry Trumble	Wright Labs/POOC Wright Patterson AFB, OH 45433-6533
-5	Thermal control materials	Charles Hurley	Univ. of Dayton Research Inst. 300 College Park Dayton, OH 45469-0001
-6	Laser communication components	Randall R. Hodgson	McDonnell Douglas Astronautics Corp. Mail Code 1067267 P. O. Box 516 St. Louis, MO 63166
-7	Laser mirror coatings	Terry M. Donovan	3481 Murdoch Dr. Palo Alto, CA 94306
-8	Composite materials, electronic piece parts, fiber optics	Gary Pippin	Boeing Aerospace Co. Materials technology Dept., MS 2E-01 P. O. Box 3999 Seattle, WA 98124
-9	Thermal control materials, antenna materials, composite materials, and cold welding	Brian C. Petrie	Lockheed Missiles & Space Co. Dept. 62-92, Bldg. 564 P. O. Box J04 Sunnyvale, CA 94086
-10	Advanced composite materials	Gary L. Steckel	The Aerospace Corp. P. O. Box 92957, M2/242 Los Angeles, CA 90009
-11, -12	Contamination monitoring, Radiation measurements	Eugene N. Borson, F. B. Sinsheimer	The Aerospace Corp. M2/270
-13	Laser hardened materials	Randall R. Hodgson	McDonnell Douglas Astronautics Corp. Mail Code 1067267 P. O. Box 516 St. Louis, MO 63166
-14	Quartz crystal microbalance	Donald A. Wallace	QCM Research 2825 Laguna Canyon Road P. O. Box 277 Laguna Beach, CA 92652
-15	Thermal control materials	Oscar Esquivel	The Aerospace Corp. M2/241
-16	Advanced polymer composites	Gary L. Steckel	The Aerospace Corp. M2/242
-17	Radiation dosimetry	Sam S. Imamoto, J. Bernard Blake	The Aerospace Corp. M2/260
-18	Thermal control paints	Christopher H. Jaggers	The Aerospace Corp. M2/271
-19	Electronic Piece Parts	Seymour Feuerstein	The Aerospace Corp. M2/244
-20	Tray Hardware	Michael J. Meshishnek	The Aerospace Corp. M2/271

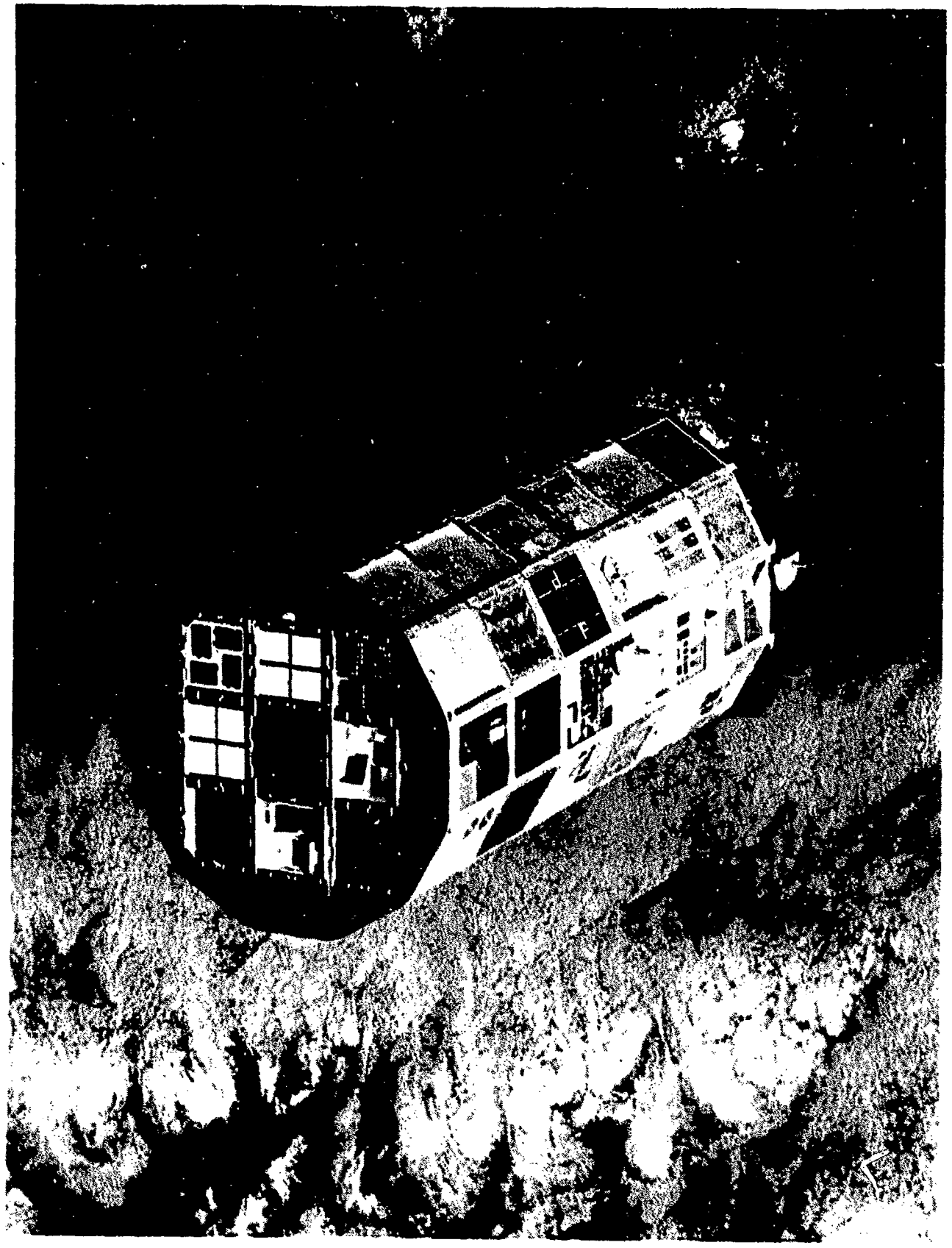

Figure 1. The LDEF in space just after deployment by the Space Shuttle Columbia (April 1984).

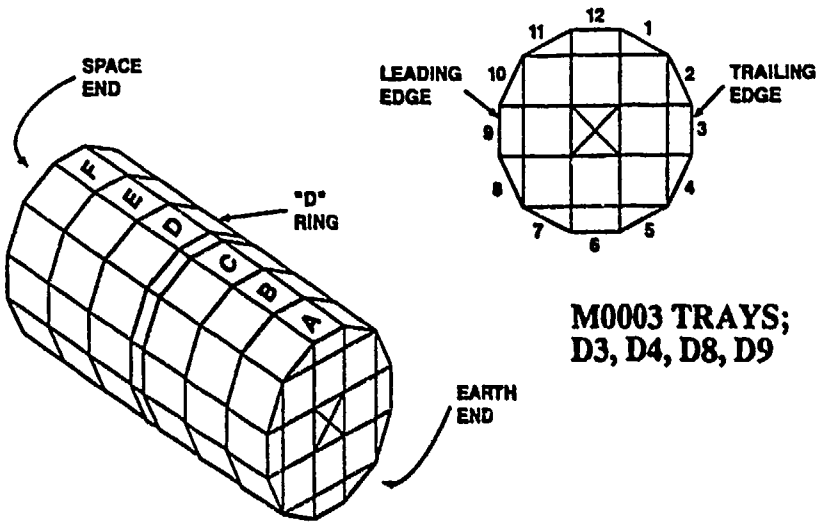

Figure 2. Diagram of LDEF showing row and ring nomenclature.

Table II. Environments Experienced by Samples on the M0003 Trays

Tray	AO (atoms/cm^2)	Solar Exposure (hr)	Thermal Cycles
Leading edge D9	8.99E+21	11,155	32,422
Leading edge D8	7.15E+21	9,409	32,422
Trailing edge D3	1.32E+3	11,110	32,422
Trailing edge D4	2.31E+5	10,458	32,422

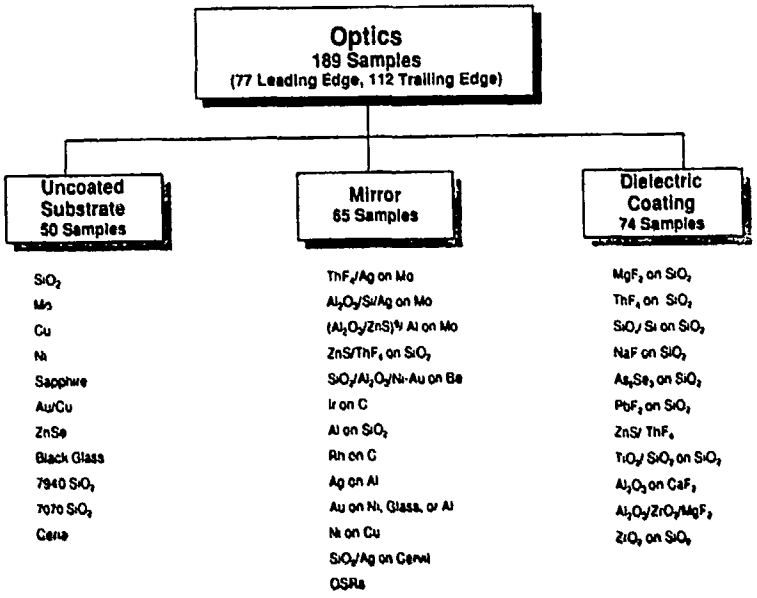

Figure 3. Diagram of optical samples in database.

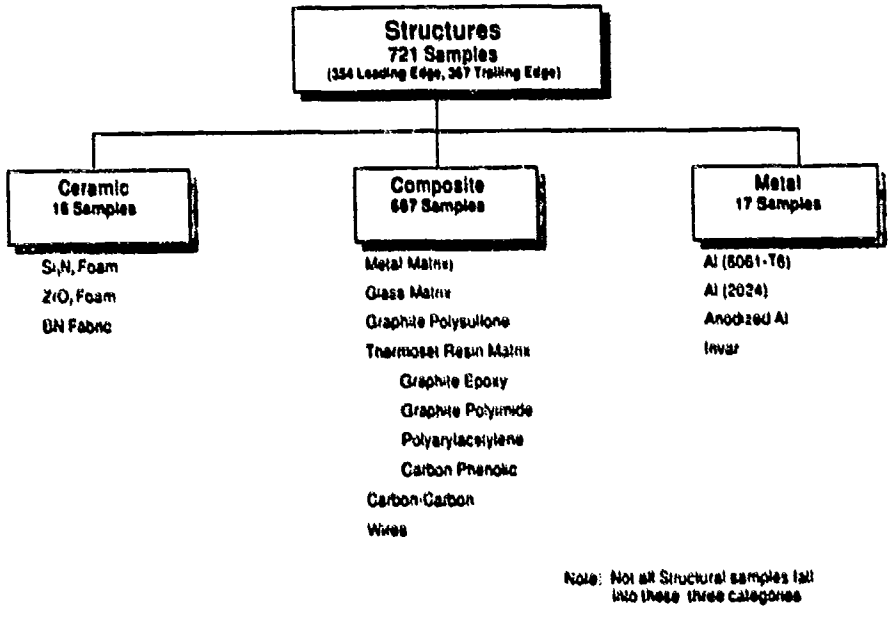

Figure 4. Diagram of structural samples in database.

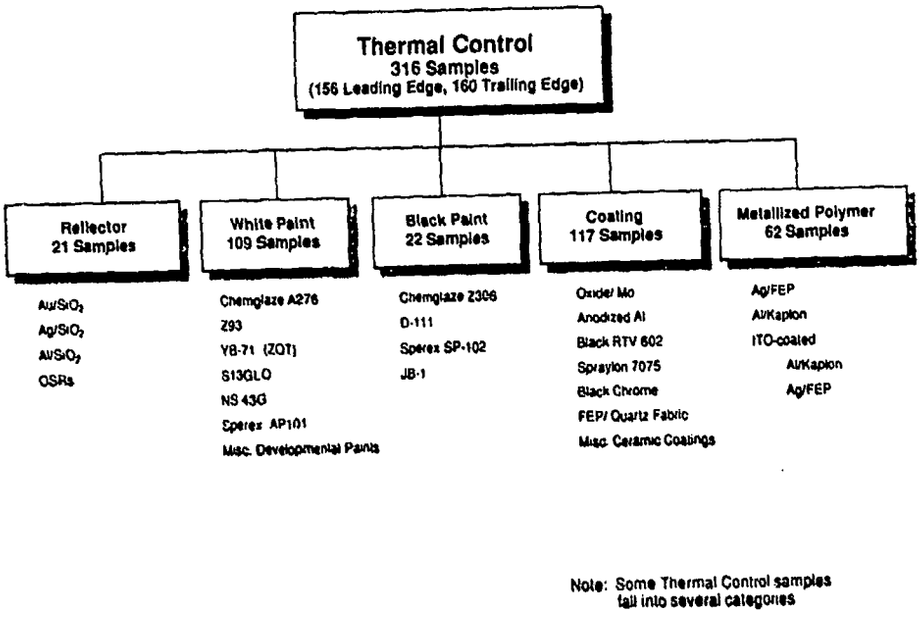

Figure 5. Diagram of thermal control samples in database.

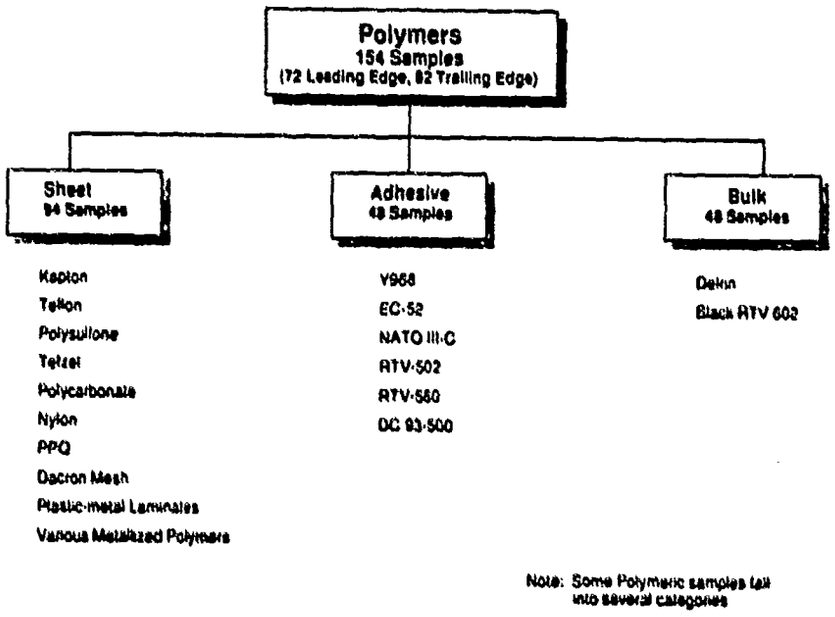

Figure 6. Diagram of polymeric samples in database.

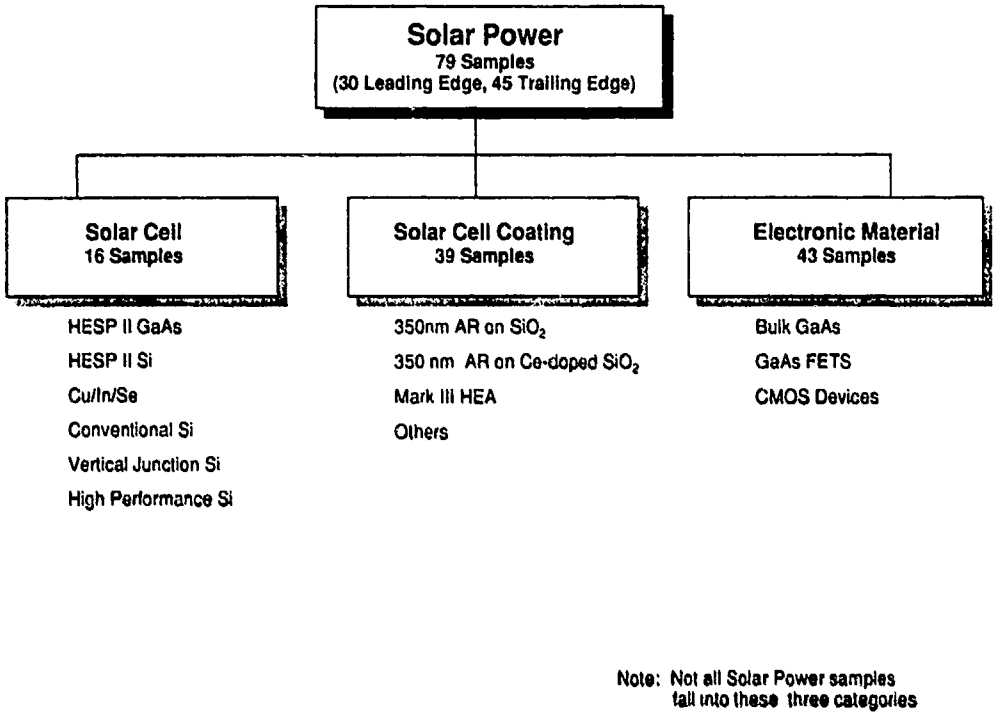

Figure 7. Diagram of Solar Power samples in database.

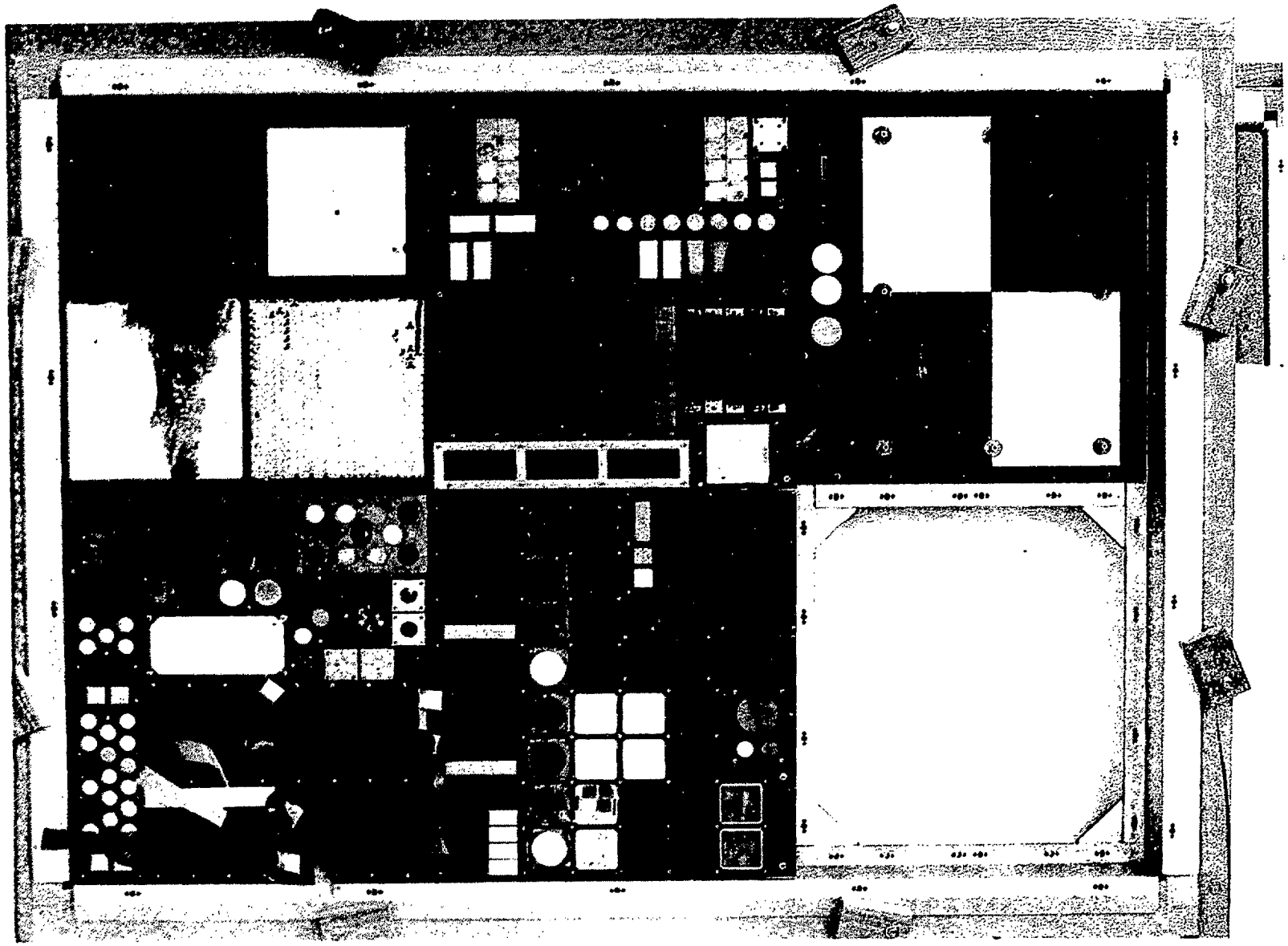

Figure 8. Post-flight photograph of the leading edge 3-in. tray, D9 (L3).

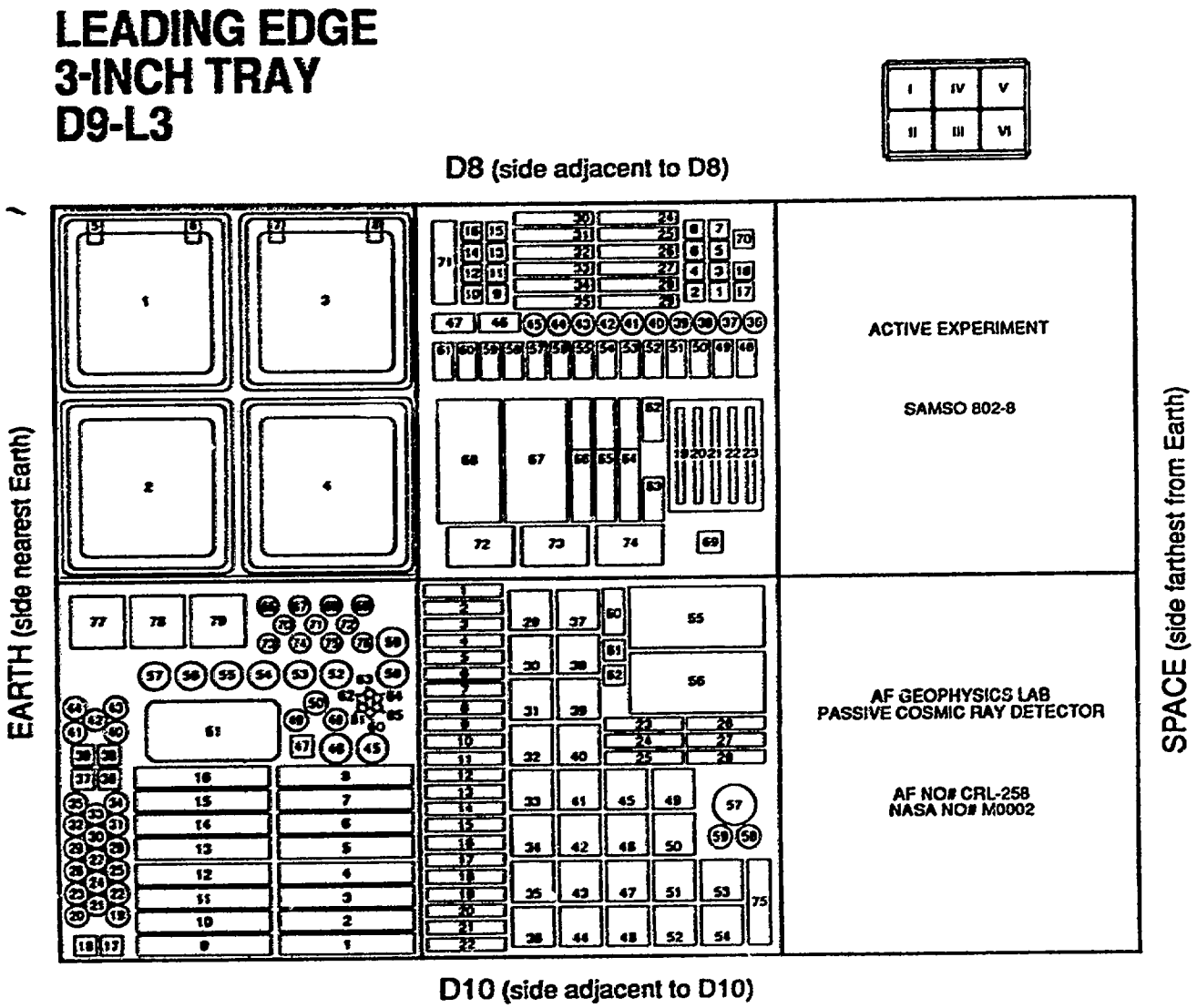

Figure 9. Diagram of sample layout on leading edge 3-in. tray, D9 (L3).

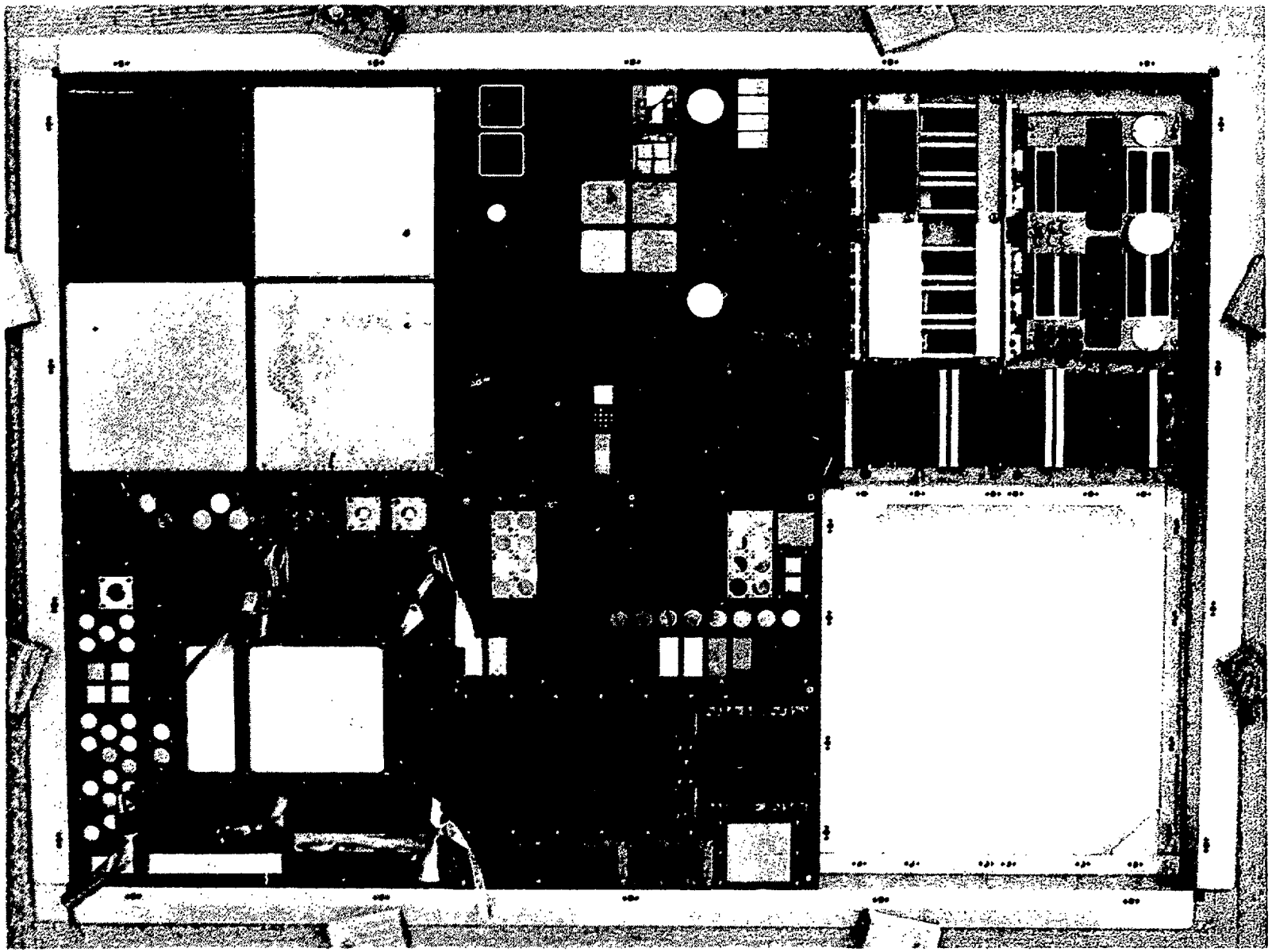

Figure 10. Post-flight photograph of the trailing edge 3-in. tray, D3 (T3)

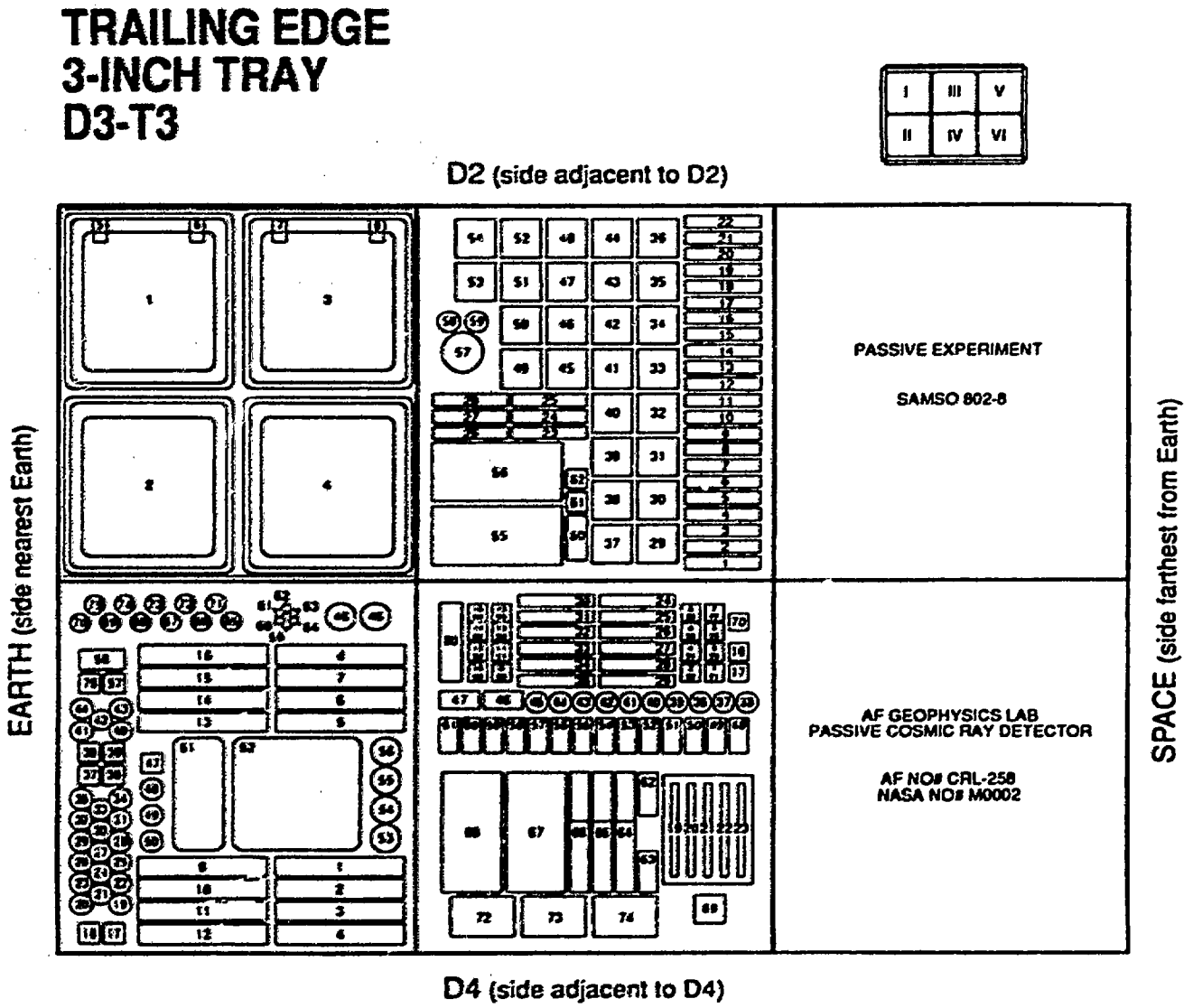

Figure 11. Diagram of sample layout on trailing edge 3-in. tray, D3 (T3).

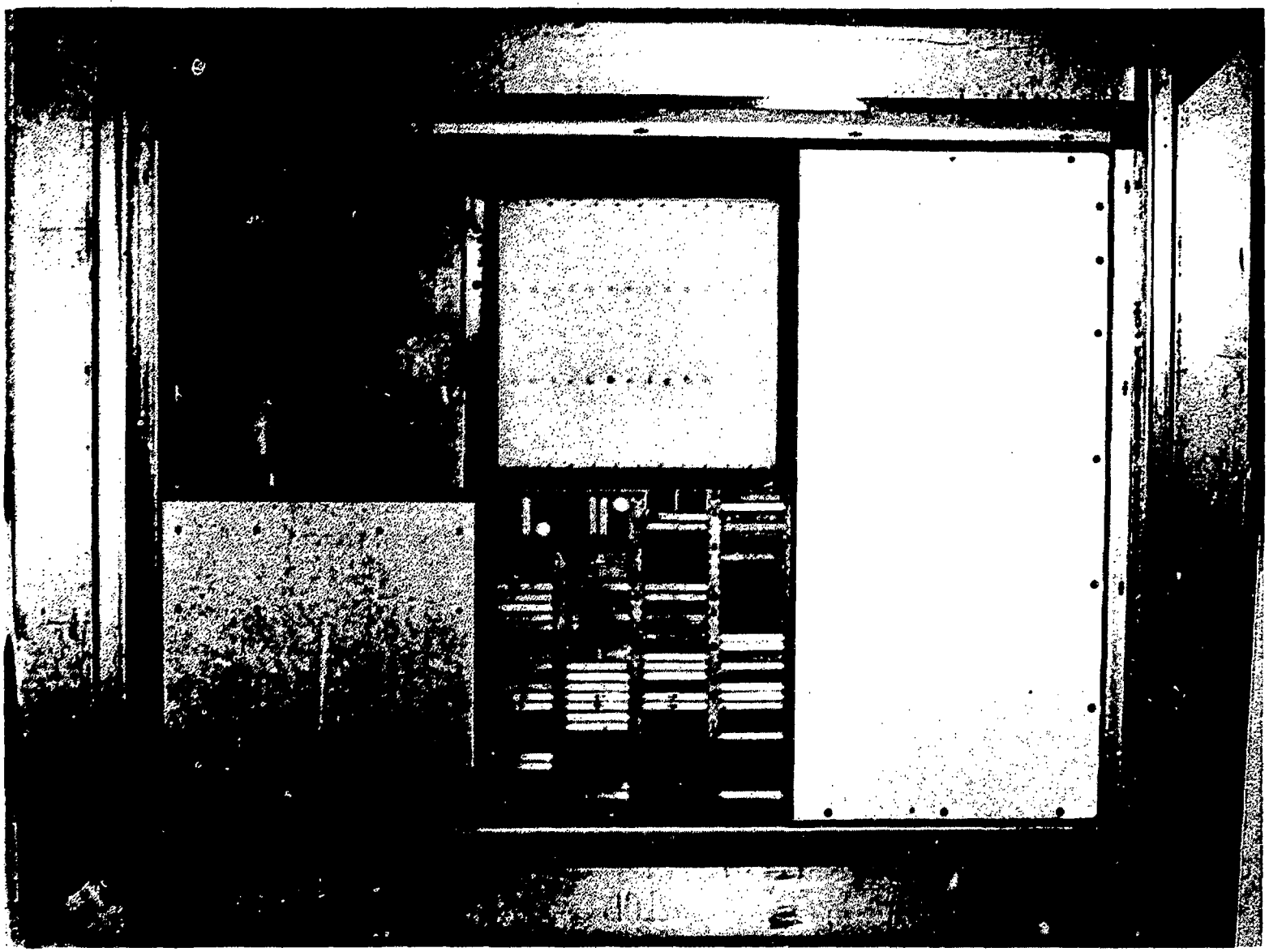

Figure 12. Post-flight photograph of the leading edge 6-in. tray, D8 (L6).

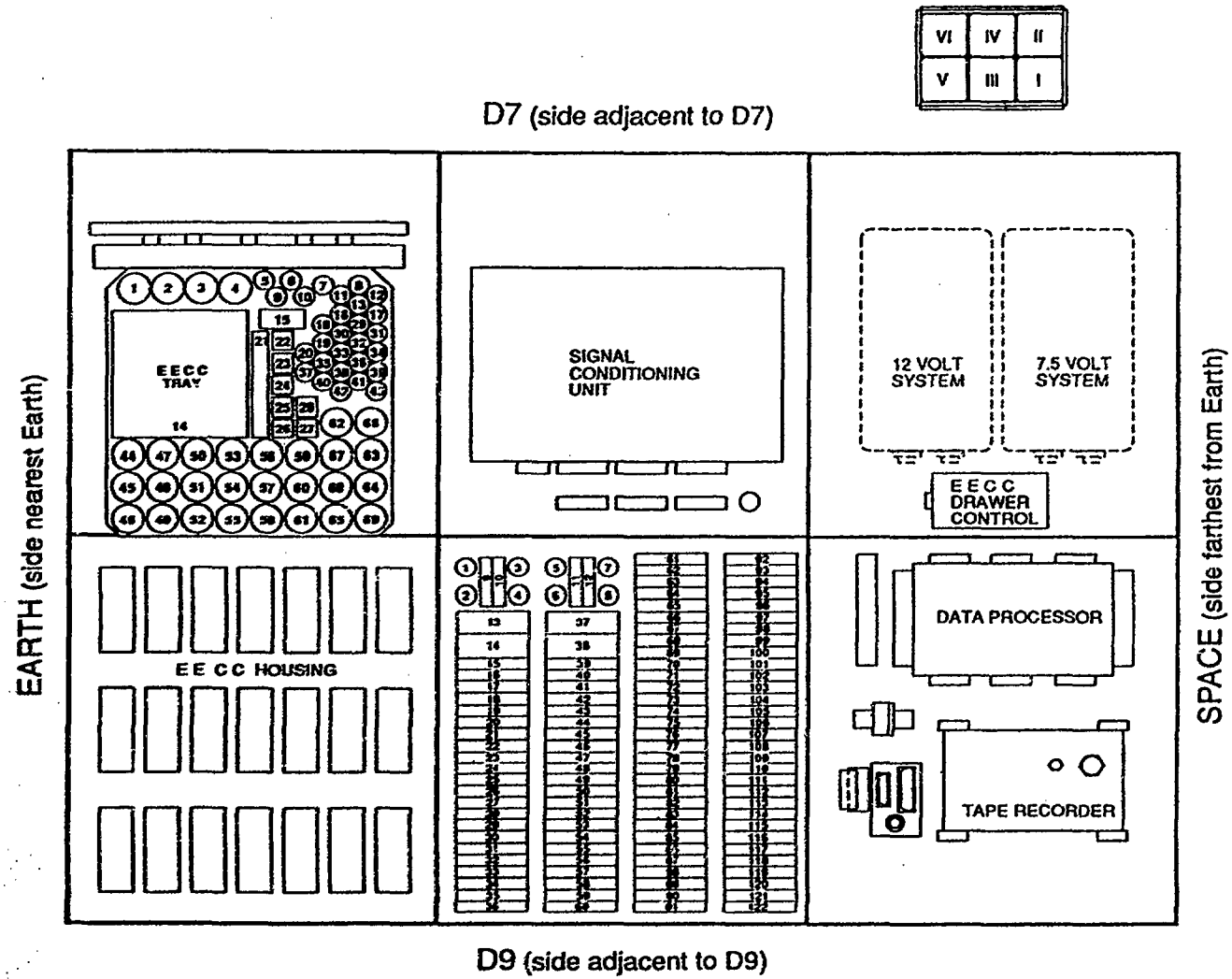

Figure 13. Diagram of sample layout of the leading edge 6-in. tray, D8 (L6).

Figure 14. Post-flight photograph of the trailing edge 6-in.tray, D4 (T6).

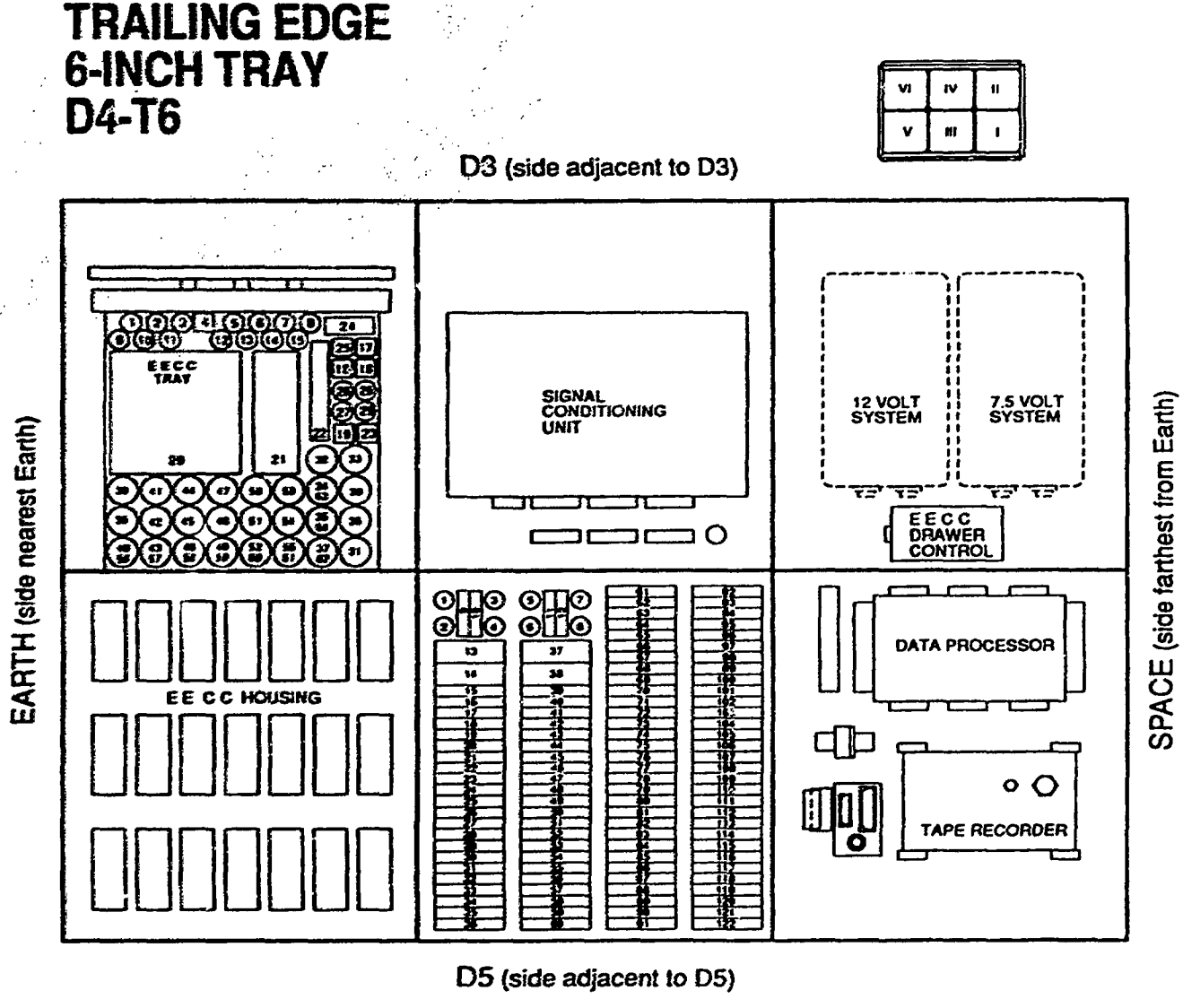

Figure 15. Diagram of sample layout of the trailing edge 6-in. tray, D4 (T6).

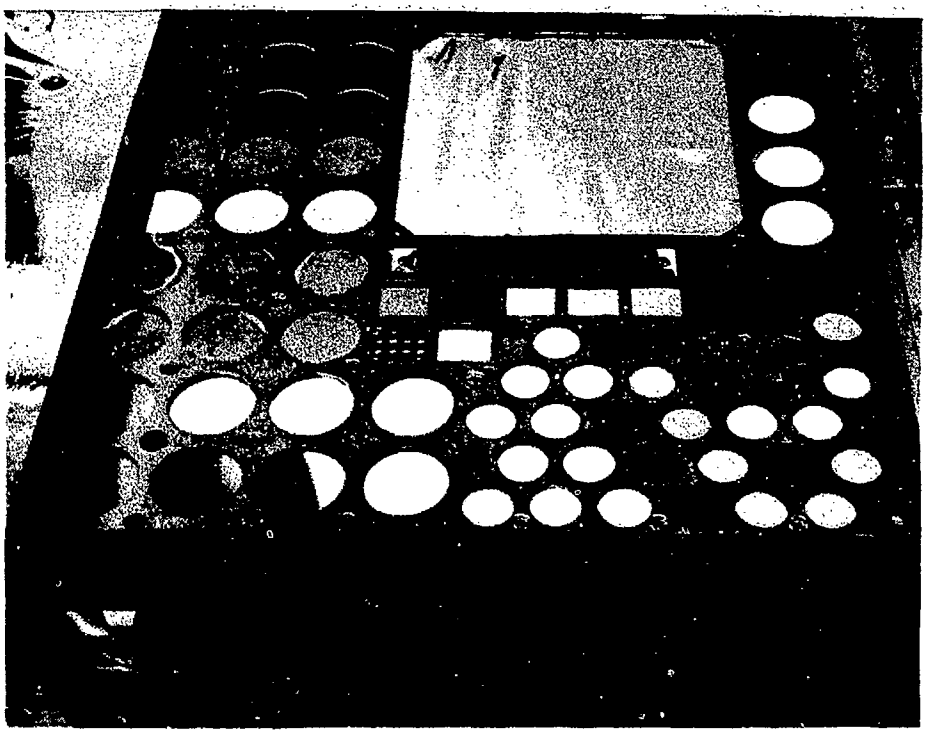

Figure 16. Post-flight photograph of open leading edge canister (Tray D8, Module VI).

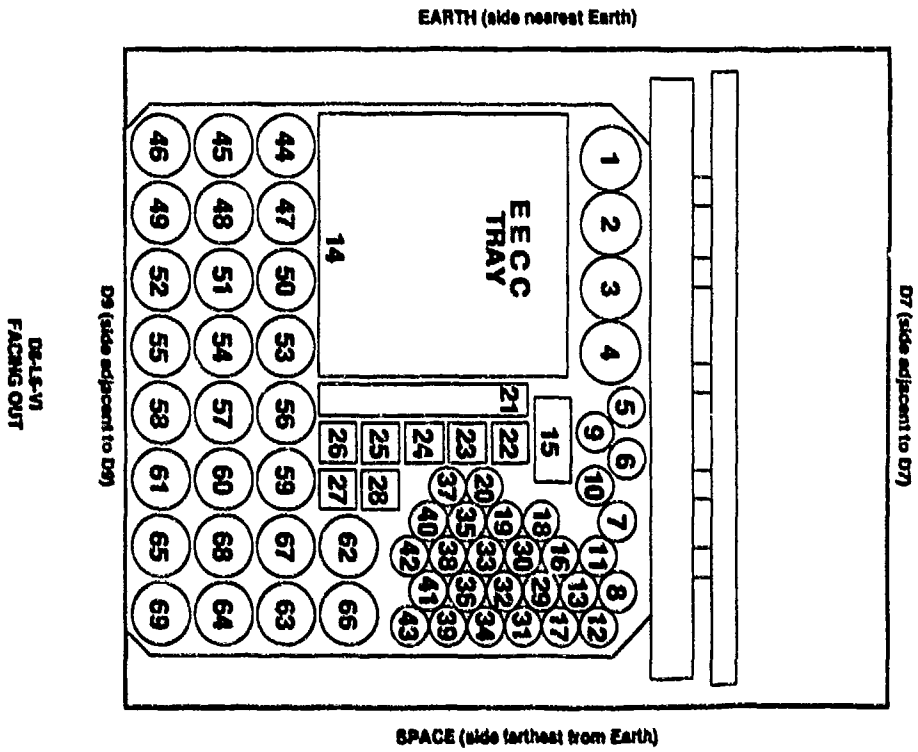

Figure 17. Diagram of sample layout on leading edge canister (Tray D8, Module VI).

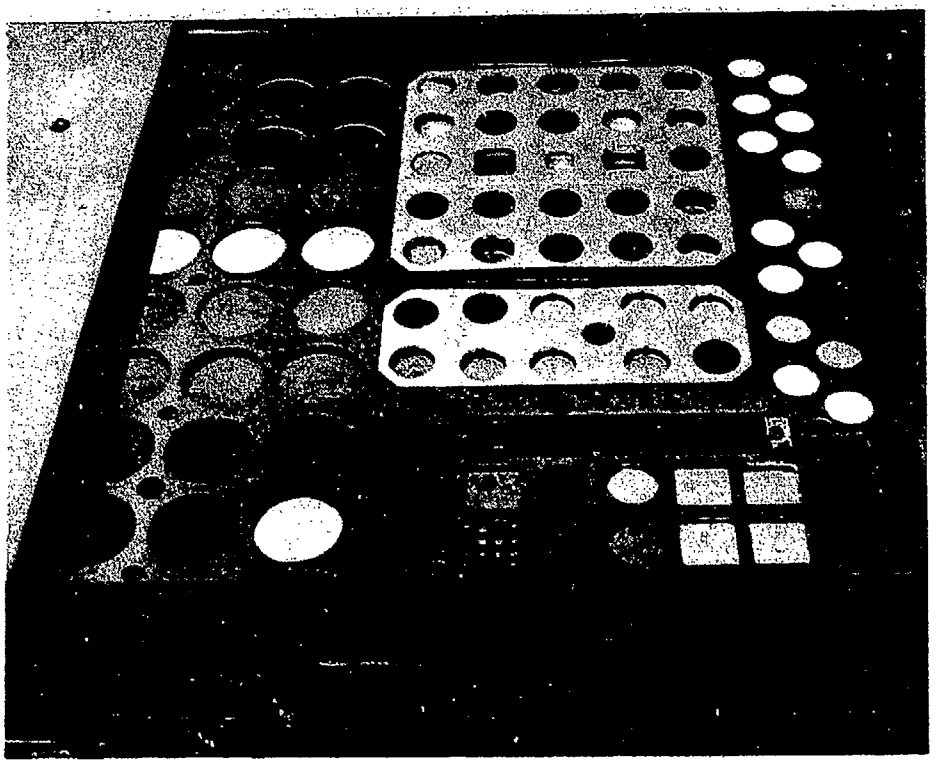

Figure 18. Post-flight photograph of open trailing edge canister (Tray D4, Module VI).

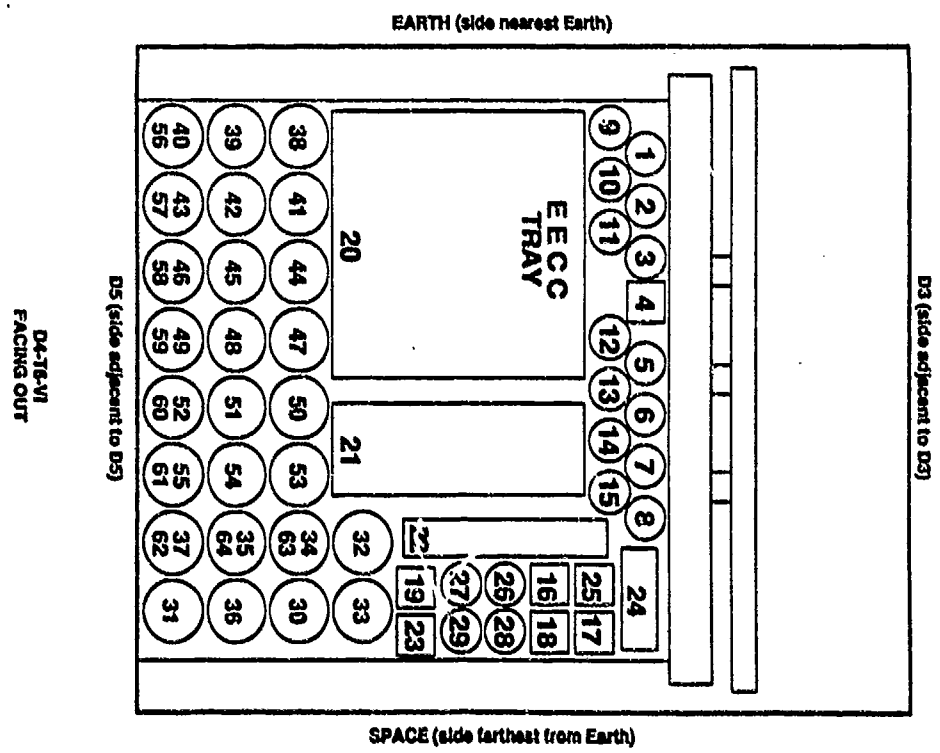

Figure 19. Diagram of sample layout on trailing edge canister (Tray D4, Module VI).

Figure 20. View of two hypervelocity particle impacts to the Chemglaze A276-painted sunshield on leading edge Tray D4 (L6). The puncture is 2.5mm in diameter. The second impact created a small crater surrounded by an exfoliated zone in the atomic oxygen-eroded paint.

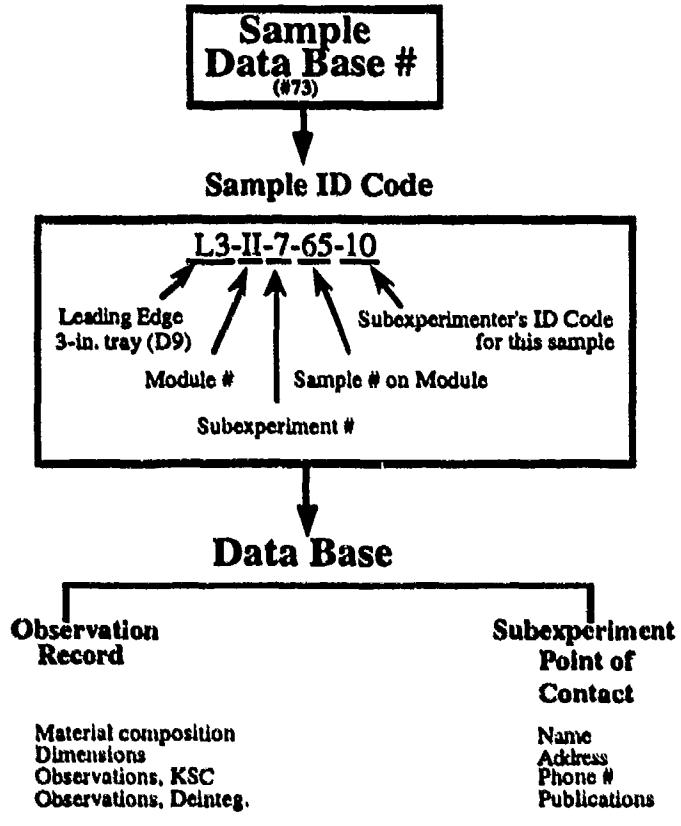

Figure 21. Diagram of M0003 database.

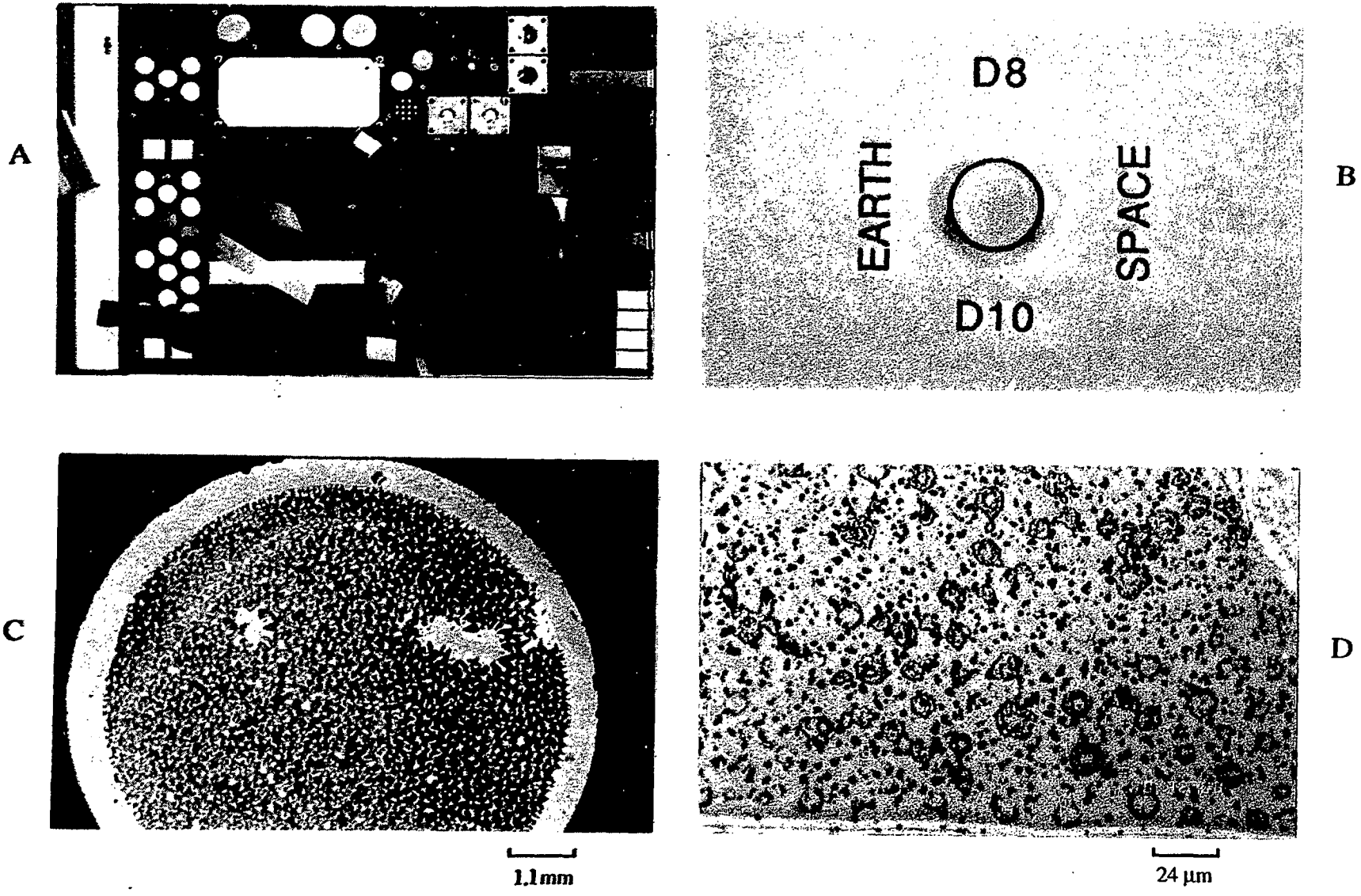

Figure 22. Examples of macrographs and micrographs that can be ordered from archives.
View A. Macrograph of Module II on Tray D9 (DB#73 resides on this module).
View B. Sample macrograph of DB#73 (L3II-7-65-10, ZnS coating on fused silica 375 in. dia.).
View C. Low magnification micrograph of buckled coating on surface of DB#73.
View D. High magnification micrograph of annular features on buckled coating on DB#73.

LDEF M0003 Sample Observation

Sample ID: L3II-7-65-10
Database #: 73

Tray: D9 **Module:** II **Experiment:** 7
Description: ZnS coating on SiO2 substrate

Width: 0.375 **Exposure:** 69 months
Length
Thickness 0.100
Category: Coating, glass
Subcategory: Coated substrate
Application: Optics

Post-flight Condition:
Buckled (+), delaminated

Observations at KSC Before De-Integration:
SURFACE CRACKED, FLAKING

Observations at The Aerospace Corporation:

Date Tuesday, May 15, 1990

The exposed coating appears uniformly buckled; some areas have buckled so severely that the coating has flaked. In the flaked areas, the residual surface (the substrate) is smooth. Another phase appears to have nucleated on the top of the buckled surface. This phase is manifested, in various stages of formation, as crescent-, ring- or circular-shaped features on the surface.

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Publications:
1. T. M. Donovan, J. M. Bennett, and S. Gyetvay, "Space Environmental Effects on Coated Optics," Proceedings of the First Post-Retrieval Symposium, Kissimmee, FL, June 2-8, 1991, NASA Conference Publication 3134, Part 3

Mechanics and Materials Technology Center
THE AEROSPACE CORPORATION

Figure 23. Example of hard copy database observation record (DB#73).

APPENDIX A

M0003 DATABASE CONTENTS LIST

DB#	Sample ID	Description	Post-Flight Condition
1	L3I-1-1-C	Resonant reflector	Eroded (+), cratered
2	L3I-1-2-D	Circuit analog sheet	Discolored (+), cratered
3	L3I-1-3-A	Capacitive grid	Eroded (+), cratered
4	L3I 1-4 B	Resonant window	Eroded (+), cratered
5	L3I-9-5 CW1	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	Unchanged
6	L3I 9-6-CW2	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	Unchanged
7	L3I 9 7 CW3	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	Unchanged
8	L3I 9 8 CW4	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	Unchanged
9	L3II 5 1 C1	Teflon FEP/Ag/Inconel, 2 mil Sheldahl	Embrittled, eroded crazed, cratered
10	L3II 5 2 C2	Teflon FEP/Ag/Inconel, 5 mil, Sheldahl	Embrittled eroded, crazed flaked
11	L3II 5 3 C3	Kapton/Al 1 mil Sheldahl	Eroded, cratered
12	L3II 5 4 C4	Kapton/Al, 5 mil Sheldahl	Eroded, cratered
13	L3II 5 5 C5	Teflon FEP type A, 5 mil	Eroded, embrittled
14	L3II 5 6 C6	Teflon FEP/Ag/Inconel (5 mil)/Eccobond 57C/Kapton (5 mil)	Eroded, crazed, flaked
15	L3II 5 7 C7	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	Eroded, crazed, flaked
16	L3II-5 8 C8	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	Eroded, crazed, flaked
17	L3II 5 9 C9	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	Eroded crazed, flaked, cratered
18	L3II 5 10 C10	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Al/Kapton (5 mil)	Eroded crazed, flaked
19	L3II-5-11-C11	Teflon FEP/Ag/Inconel (5 mil)/Y966/Kapton (5 mil)	Eroded, crazed, flaked
20	L3II 5 12 C12	Teflon FEP/Ag/Inconel (5 mil)/NATO IIIC/Kapton 8 5 mil	Eroded, contaminated (particle),cratered
21	L3II 5-13-C13	Nylon 6/6, 5 mil	Eroded
22	L3II 5 14 C14	Telzel 500AE 5 mil	Eroded, embrittled
23	L3II 5 15-C15	Polycarbonate 5 mil	Eroded, embrittled, cratered
24	L3II 5 16-C16	Polyphenylsulfone R 5000, 10 mil, Union Carbide	Eroded, embrittled, contaminated (stain), cratered
25	L3II 5-17 B1	Optical Solar Reflector, OCLI SI-100	Corroded, contaminated (particle)
26	L3II 5 18 B2	Optical Solar Reflector, OCLI SI-100 with conductive coating	Hazed, corroded, cratered
27	L3II 5 19 A1	Quartz fabric 581 (Astroquartz)/Teflon FEP/Al General Electric	Unchanged
28	L3II 5 20-A2	Indium-Tin oxide/Teflon FEP/Ag/Inconel, 5 mil, Sheldahl	Eroded
29	L3II 5 21 A3	Porcelain enamel on Al, NASA Marshall Space Flight Center	Discolored ( )
30	L3II-5 22 A4	Indium-Tin oxide/Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	Textured
31	L3II 5 23 A5	Black paint, D111, IITRI	Crazed, contaminated (particle)
32	L3II-5 24 A6	7 μm quartz fabric chemical and heat cleaned (+ 450 °C), adhesive bond/Al, General Electric	Unchanged
33	L3II-5-25-A7	Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	Eroded (+)
34	L3II-5 26-A8	Teflon FEP/Ag/Inconel, 5 mil, Sheldahl	Eroded
35	L3II-5-27-A9	In2O3/Teflon FEP/Ag/Inconel, 5 mil, General Electric	Microfractured
36	L3II 5 28-A10	Kapton/Al, 1 mil, Sheldahl	Eroded
37	L3II 5 29-A11	Kapton/Al, 5 mil, Sheldahl	Eroded
38	L3II 5-30 A12	In2O3/Kapton/Al, 5 mil, General Electric	Unchanged
39	L3II 5-31-A13	White paint, Z93, IITRI	Cratered
40	L3II 5 32 A14	White paint, S13GLO, IITRI	Discolored (-)

DBs	Sample ID	Description	Post-Flight Condition
41	L3II-5-33-A15	White paint, YB-71, IITRI	Crazed, whiskered
42	L3II-5-34 A16	White paint, NS 43G, NASA Goddard Space Flight Center	Discolored (-), crazed
43	L3II-5-35 A17	White paint, Eu2O3/RTV 602, ML101, Air Force Materials Laboratory	Unchanged
44	L3II-5-36 B3	Au mirror/Al	Unchanged
45	L3II 5 37 B4	Al mirror/glass	Buckled, flaked
46	L3II 5 38 B5	Ag mirror/Al	Corroded (+)
47	L3II 5 39 B6	Ag mirror/Al	Corroded (+), cratered
48	L3II 5 40 A18	White paint alpha-Al2O3/RTV 602, ML101 Air Force Materials Laboratory	Discolored (+)
49	L3II 5 41 A19	White paint PV100 TiO2/silicone resin, ML101 Air Force Materials Laboratory	Unchanged
50	L3II 5 42 A20	White paint TiO2/RTV 602, ML101 Air Force Materials Laboratory	Discolored, crazed
51	L3II 5 43 A21	White paint DC92 007 TiO2/RTV 3140, Rockwell Int	Discolored (+), crazed
52	L3II 5 44 A22	White paint DC92 007 TiO2/RTV 3140, Rockwell Int	Discolored (+), crazed
53	L3II 14 45 12	Coated quartz crystal microbalance (QCM) active, 150A In2O3/9000A Al+Al2O3	Hazed, cratered
54	L3II 14 46 6	Coated quartz crystal microbalance (QCM) passive, 150A ZnS/9000A Al+Al2O3	Hazed, cracked, cratered
55	L3II 12 47 1	Thermoluminescent dosimeter, LiF	Cratered
56	L3II 11 48 BG01	Low scatter black glass	Discolored, hazed, cratered
57	L3II 11 49 S07	Aluminized fused silica mirror	Contaminated (particle) cratered
58	L3II 11 50 N01	Low scatter nickel mirror	Hazed, corroded
59	L3II 6 51 V	Ag/Teflon FEP covered cassette holding 9 laser communication detectors	Cover eroded, distorted, cratered
60	L3II 2 52 006	Fused SiO2	Cratered
61	L3II-2 53 010	MgF2 coating, lambda (1 06)/2 thick/fused silica substrate	Crazed (+), cratered
62	L3II 2 54 N18A	Polished molybdenum	Oxidized (+), hazed, cratered
63	L3II-2-55 N24B	ThF4/Ag/Cr coating lambda (1 06)/2 thick/ molybdenum substrate	Blistered, flaked, cratered
64	L3II 2 56 8688	Diamond-turned copper	Oxidized (+)
65	L3II 2 57 10	Diamond turned nickel coated copper	Corroded, hazed
66	L3II 4 58 SC1	Solar cell coating	Microfractured, cratered
67	L3II 4 59 SC2	Solar cell coating	Cracked, cratered
68	L3II 7 60 1	Al2O3 coating on SiO2 substrate	Microfractured ( ), wrinkled, cratered
69	L3II-7-61-3	Si coating on SiO2 substrate	Microfractured ( ), cratered
70	L3II-7-62 5	NaF coating on SiO2 substrate	Microfractured (+), cratered
71	L3II-7-63-6	ThF4 coating on SiO2 substrate	Microfractured (+), cratered
72	L3II-7-64-9	SiOx coating on SiO2 substrate	Microfractured (-), cratered
73	L3II-7 65 10	ZnS coating on SiO2 substrate	Buckled (+), delaminated
74	L3II-15 66 A1	Rhodium foil bonded with DC 6-1104 to aluminum substrate	Hazed, contaminated (particle)
75	L3II-15-67-B1	Iridium foil bonded with DC 6-1104 to aluminum substrate	Contaminated (particle)
76	L3II-15 68-C1	Polished molybdenum mirror	Discolored, contaminated (stain, particle)
77	L3II-15-69-D1	Sputtered black rhodium coating on polished molybdenum substrate	Cratered
78	L3II-15-70-E1	Sputtered black iridium coating on polished molybdenum substrate	Crazed, flaked, cratered
79	L3II 15 71-F1	Black chrome coating on molybdenum substrate	Cracked, flaked
80	L3II 16-72-G1	White thermal control paint, YB-71/Al, IITRI	Crazed

DBs	Sample ID	Description	Post-Flight Condition
81	L3II-18 73-H1	Black thermal control paint, D111/Al, IITRI	Bleached, crazed, flaked, cratered
82	L3II 18-74 I	ZnSe crystal	Discolored, cratered, contaminated (particle)
83	L3II 18 75-J	Polyphenylquinoxaline (PPQ) film on Al	Eroded
84	L3II 15 76 k	Sputtered black rhodium coating on molybdenum substrate	Crazed, flaked, contaminated (stain), cratered
85	L3II 15 77 L1	Sputtered black chrome coating on molybdenum substrate	Oxidized, flaked, cratered
86	L3II 15 78 M1	Black glass coating on molybdenum substrate	Oxidized, flaked, cratered
87	L3II 15 79 N1	Sputtered black chrome coating on molybdenum substrate	Oxidized, flaked
88	L3III 9 1-CM2b	GY70/CE 399 (0/(90)2/0)4T 250 F	Eroded
89	L3III 9 2 CM4a	GY70/CE 339 ((0)2/(90)2)T 250 F	Eroded
90	L3III 9 3 CM6b	T50 F263 (0/(90)2/0)4T 350 F	Eroded, cratered
91	L3III 9 4 CM8a	T50 F263 ((0)2/(90)2)T. 350 F	Eroded, cratered
92	L3III 9 5 CM10c	T 50 (PAN)/934(0/(90)2/0)4T. 350 F	Eroded, contaminated (stain)
93	L3III 9 6 CM14a	T 50 (PAN)/X904B 10(90(2)/0) 4T. 350 F	Eroded, cratered
94	L3III 9 7 CM18a	T 50(PAN)/E788(O/(9O)2/O)4T. 350 F	Eroded
95	L3III 9 8 CM42b	Kevlar/epoxy K49 fabric/X904B ((0)2/(90)2)T. 350 F	Eroded
96	L3III 9 9 CM44a	T-50/F263 (0/(90)2/0)4T. 300 F	Eroded, cratered
97	L3III 9 10 CM30b	Celion 6000/E788(0/(90)2/0)4T. 350 F	Eroded, cratered
98	L3III 9 11 CM3a	GY70/CE 399 (±45/(45)2/±45)4T 250 F	Eroded, cratered
99	L3III 9 12 CM7a	T50/F263 (±45/(45)2/±45)4T	Eroded
100	L3III 9 13 CM11c	T 50 (PAN)/934/±45/(45)2/±45)4T. 350 F	Eroded
101	L3III-9 14 CM15d	T 50(PAN)/X904B-10(±45/(45)2/±45)4T 350 F	Eroded, cratered
102	L3III-9-15-CM19a	T 50(PAN)/E788(±45/(-45)2/±45)4T. 350 F	Eroded, contaminated (particle)
103	L3III 9-16-CM38c	KEVLAR/epoxy 49 fabric/X904B (±45)4S. 350 F	Eroded, contaminated (particle), cratered
104	L3III 9 17 CM45d	T 50/F263 (±45/(-45)2/±45)4T. 300 F	Eroded
105	L3III 9 18 CM31d	Celion 6000/E788(±45/(-45)2/±45)4T. 350 F	Eroded, cratered
106	L3III 9 19 AB1 2	HMF 330C/934-2024-HMF 300C/934 (9628). 250 F	Eroded, cratered
107	L3III 9 20 AB1 5	HMF 330C/934-2024-HMF 330C/934 (9628). 250 F	Eroded, cratered
108	L3III 9 21 AB1 7	HMF 330C/934-2024-HMF 330C/934 (9628) 250 F	Eroded, cratered
109	L3III 9 22 AB1 9	HMF 330C/934 2024-HMF 330C/934 (9628). 250 F	Eroded
110	L3III 9 23 CM12	T 50(PAN)/934 ((0)2/(90)2)T. 350 F	Eroded
111	L3III-9-24 CM16	T 50(PAN)/X904B-10((0)2/(90)2)T. 350 F	Eroded, distorted, cratered
112	L3III 9 25-CM20	T 50(PAN)/E788((0)2/(90)2)T. 350 F	Eroded, distorted
113	L3III 9-26-CM28	HMS/3501 5A((0)2/(90)2)T. 290 F	Eroded, cratered
114	L3III-9-27-CM46	T50/F263 ((0)2/(90)2)T. 300 F	Eroded, distorted, cratered
115	L3III-9-28-CM32	Celion 6000/E788/((0)2/(90)2)T. 350 F	Eroded, distorted
116	L3III-9-29-AM1E	Gold-plated woven Dacron mesh	Eroded, cratered
117	L3III 9-30 AM2E	Gold-plated knitted Dacron mesh	Eroded
118	L3III-9-31-AM3E	Plastic-metal mesh laminate	Eroded
119	L3III 9 32 AM4E	Solid plastic-metal laminate	Eroded, cratered
120	L3III 9 33 AM1A	Gold-plated woven Dacron mesh	Eroded

DBs	Sample ID	Description	Post-Flight Condition
121	L3III 9 34 AM2A	Gold-plated knitted Dacron mesh	Eroded
122	L3III 9 35 AM3B	Plastic metal mesh laminate	Eroded, cratered
123	L3III 9 36 AM4D	Solid plastic metal laminate	Eroded, cratered
124	L3III 3 37 III	Graphite polyimide	Eroded, contaminated (particle)
125	L3III 3 38 III	Graphite polyimide	Eroded, cratered
126	L3III 3 39 VI	Special carbon/tungsten bearing resin	Eroded, cratered
127	L3III 3 40 VI	Special carbon/tungsten bearing resin	Eroded, cratered
128	L3III 3 41 IIIa	Aluminum 2024 Al/Cu alloy	Discolored, cratered
129	L3III 3 42 IIIa	Aluminum 2024 Al/Cu alloy	Discolored, cratered
130	L3III 19 43 A 00	Anodized aluminum mounting plate with MOS devices	Discolored, crazed, cratered
130 01	L3III 19 43 A 01	MOS Device	Eroded, contaminated (particle), cratered
130 02	L3III 19 43 A 02	MOS Device	Eroded, contaminated (particle)
130 03	L3III 19 43 A 03	MOS Device	Discolored, contaminated (particle), cratered
130 04	L3III 19 43 A 04	MOS Device	Discolored, contaminated (particle), cratered
130 05	L3III 19 43 A 05	MOS Device	Discolored, contaminated (particle), cratered
130 06	L3III 19 43 A 06	MOS Devices	Discolored, contaminated (particle), cratered
130 07	L3III 19 43 A 07	MOS Devices	Discolored, contaminated (particle), cratered
130 08	L3III 19 43 A 08	MOS Device	Discolored, contaminated (particle), cratered
130 09	L3III 19 43 A 09	MOS Device	Discolored, contaminated (particle), cratered
130 10	L3III 19 43 A 10	MOS Devices	Contamination (particle), cratered
131	L3III 19 44 B 00	Anodized aluminum mounting plate with GaAs FETs bulk GaAs	Corroded, contaminated (particle)
131 01	L3III 19 44 B 01	GaAs FETs bulk GaAs	Corroded, contaminated (particle)
131 02	L3III 19 44 B 02	GaAs FETs bulk GaAs	Corroded, contaminated (particle)
131 03	L3III 19 44 B 03	GaAs FETs bulk GaAs	Corroded, contaminated (particle)
131 04	L3III 19 44 B 04	GaAs FETs bulk GaAs	Contaminated (particle)
131 05	L3III 19 44 B 05	GaAs FETs bulk GaAs	Corroded, contaminated (particle)
131 06	L3III 19 44 B 06	GaAs FETs bulk GaAs	Corroded, contaminated (particle)
131 07	L3III 19 44 B 07	GaAs FETs bulk GaAs	Contaminated (particle)
131 08	L3III 19 44 B 08	GaAs FETs bulk GaAs	Contaminated (particle), cratered
131 09	L3III 19 44 B 3639A	GaAs FETs bulk GaAs	Contaminated (particle), cratered
131 10	L3III 19 44 B 3639B	GaAs FETs bulk GaAs	Cratered
132	L3III 3 45 V	Aluminum 6061-T6	Cratered
133	L3III 3 46 V	Aluminum 6061 T6	Eroded
134	L3III 3 47 VII	Pyrolitic carbon, Pyro-Carb 431	Eroded
135	L3III 3 48 VII	Pyrolitic carbon, Pyro-Carb 431	Eroded, cratered
136	L3III 3 49 I	Tape-wrapped carbon phenolic	Eroded
137	L3III 3 50 I	Tape-wrapped carbon phenolic	Eroded
138	L3III 3 51 IV	Graphite polysulfone	Eroded, cratered
139	L3III 3 52 IV	Graphite polysulfone	Eroded (·)
140	L3III 3 53 II	Three dimensional quartz phenolic	

DB#	Sample ID	Description	Post-Flight Condition
141	L3III 3 54 II	Three-dimensional quartz phenolic	Eroded (-)
142	L3III 8 55 30	Graphite/polyimide (IMS 2 unidirectional tape/PMR 15 [0°])	Eroded, cratered
143	L3III 8 56 10	Graphite/epoxy (T 300 unidirectional tape/Fiberite EA934 epoxy resin [0°])	Eroded, cratered
144	L3III 8 57 S12	Silicon nitride 2 layer sandwich (foam layer 0.45" thick skin layer 0.03" thick)	Contaminated (stain)
145	L3III 8 58 S2	Silicon nitride, 2 layer sandwich (foam layer 0.45" thick skin layer 0.03" thick)	Contaminated (stain)
146	L3III 11 59 S01	Aluminized fused silica mirror	Unchanged
147	L3III 11 60 1	ZnSe infrared plate	Discolored, craters, contaminated (particle)
148	L3III 12 61 2	Thermoluminescent dosimeter LiF	Discolored
149	L3III 11 62 X	Corning 7940 second surface aluminum mirror	Flaked contaminated (particle) cratered
150	L3III 9 63 CM3b	GY70/CE 339[+45/(45)2/+45]4T 250 F	Dulled
151	L3III 9 64 CM2b	T 50/F263[+45/(45)2 45]4T	Discolored
152	L3III 9 65 CM11b	T 50/PAN/934[+45/(45)2 +45]4T 350 F	Discolored ( )
153	L3III 9 66 CM15a	T 50/PAN/X904B 10[+45/(45)2/+45]4T 350 F	Discolored ( )
154	L3III 9 67 CM19b	T 50/PAN/E788[+45/(45)2]+45]4T 350 F	Discolored ( )
155	L3III 9 68 CM18d	KEVLAR/epoxy K49 fabric/X904B (+45)4S 350 F	Darkened
156	L3III 9 69 CM45c	T 50/F263 (+45/(45)2 +45]4T 300 F	Dulled
157	L3III 9 70 CM31c	Celion 6000/E788[+45/(45)2 +45]4T 350 F	Dulled
158	L3III 9 71 AB1 11	HMF 330C/934 2024 HMF 330C/934 (9628) 250 F	Discolored ( )
159	L3III 9 72 AB1 12	HMF 330C/934 2024 HMF 330C/934 (9628) 250 F	Discolored ( )
160	L3III 9 73 AB1 13	HMF 330C/934 2024 HMF 330C/934 (9628) 250 F	Discolored ( )
161	L3III 9 74 AB1 14	HMF 220C/934 2024 HMF 330C/934 (9628) 250 F	Discolored ( )
162	L3III 16 75 E	Composite (unknown fiber/matrix)	Eroded
163	L3IV 4 1 1	Standard 350 nm coating/7940 fused silica Delrin retainer OCLI	Hazed (+), contaminated (particle)
164	L3IV 4 2 5	Reflective 350 nm coating/7940 fused silica Delrin retainer OCLI	Hazed (+), contaminated (particle)
165	L3IV 4 3 9	Reflective 350 nm coating/CERIA Delrin retainer OCLI	Hazed (+), contaminated (particle) cratered
166	L3IV 4 4 13	Reflective 350 nm coating/7940 fused silica Delrin retainer OCLI	Hazed (+), contaminated (particle)
167	L3IV 4 5 17	HEA 31 coating/7940 fused silica Delrin retainer OCLI	Hazed (+), contaminated (particle), cratered
168	L3IV 4 6 24	Mark III D coating/7940 fused silica Delrin retainer OCLI	Hazed (+), contaminated (particle)
169	L3IV 4 7 25	Mark III E coating/7940 fused silica Delrin retainer OCLI	Microfractured, contaminated (particle)
170	L3IV 4 8 29	Contamination coating/7940 fused silica Delrin retainer OCLI	Hazed (+), contaminated (particle)
171	L3IV 4 9 33	Erosion coating/7940 fused silica Delrin retainer OCLI	Hazed (+), contaminated (particle)
172	L3IV 4 10 37	Erosion coating/7940 fused silica Delrin retainer OCLI	Hazed, contaminated (particle), cratered
173	L3IV 4 11 41	Mark IV coating/7940 fused silica Delrin retainer OCLI	Contaminated (particle), cratered
174	L3IV 4 12 45	Contamination coating/7940 fused silica Delrin retainer OCLI	Eroded, cratered
175	L3IV 4 13 49	7070 fused silica Delrin retainer OCLI	Hazed, contaminated (particle), cratered
176	L3IV 4 14 52	7940 fused silica Delrin retainer OCLI	Delaminated
177	L3IV 4 15 57	7940 fused silica Delrin retainer OCLI	Contaminated (particle), cratered
178	L3IV 4 16 61	Cena Delrin retainer OCLI	Contaminated (particle)
179	L3IV 18 17 1	White thermal control paint S13GLO/6061 Al IITRI	Discolored ( ), crazed
180	L3IV 18 18 2	White thermal control paint S13GLO/6061 Al IITRI	Discolored ( ), crazed

DBs	Sample ID	Description	Post-Flight Condition
181	L3IV-4-19-A	HESP II silicon cells, 5 cell string	Microfractured, cratered
182	L3IV-4-20-GA1	HESP II Ga As cells, 5 cell string	Microfractured, debonded, cratered
183	L3IV-4-21-VJ1	Vertical junction silicon cells, 5 cell string	Microfractured, cratered
184	L3IV-4-22-B	High performance silicon cells, 5 cell string	Microfractured, cratered
185	L3IV-4-23-X3	Conventional silicon cells, 5 cell string	Microfractured, debonded, contaminated (stain)
186	L3IV 9 24 CM1b	GY70/CE 339, ((0)16)T, 250°F	Oxidized, cratered
187	L3IV-9-25-CM5a	T 50/F263 ((0)16)T, 350 F	Eroded
188	L3IV 9 26 CM9a	T 50(PAN)/934 ((0)16)T, 350 F	Eroded
189	L3IV 9 27 CM13b	T 50(PAN)/X904B-10 ((0)16)T 350 F	Eroded
190	L3IV 9-28 CM17a	T 50 (PAN)/E788 ((0)16)T 350 F	Eroded contaminated (particle) cratered
191	L3IV 9 29 CM34c	HMF 176/34 fabric (+45)4S, 350 F	Eroded
192	L3IV 9 30 CM43a	T 50/F263 ((0)4)T, 300 F	Eroded, cratered
193	L3IV-9 31 CM29a	Celion 6000/E788 ((0)16)T, 350 F	Eroded, cratered
194	L3IV 9 32 CM33a	HMF176/34 fabric ((0)16)T, 350°F	Eroded
195	L3IV-9-33-CM41b	HMF 176/34 fabric ((0)2(90)2)T, 350 F	Eroded, cratered
196	L3IV 9 34 CM37a	KEVLAR/epoxy K49 fabric/X904B ((0)16)T, 350 F	Eroded
197	L3IV-9-35-CM39	E glass fabric/CE-339 ((0)16)T, 250 F	Eroded
198	L3IV 9-36-TC9	Coated molybdenum foil/1 4μ SiO2	Contaminated (stain), cratered
199	L3IV-9 37-TC9	Coated molybdenum foil/1.4μ SiO2	Contaminated (particle), cratered
200	L3IV 9 38 TC10	Coated molybdenum foil/ P238 filter (Al2O3)	Corroded
201	L3IV-9 39-TC10	Coated molybdenum foil/ P238 filter (Al2O3)	Corroded, cratered
202	L3IV 9 40-TC11	Coated molybdenum foil/ Si3N4	Hazed, cratered
203	L3IV-9-41-TC11	Coated molybdenum foil/ Si3N4	Microfractured, cratered
204	L3IV-9-42 TC12	Polyurethane white paint Chemglaze A276/II	Eroded, discolored
205	L3IV-9-43-TC12	Polyurethane white paint Chemglaze A276/II	Eroded, discolored, cratered
206	L3IV 9 44-TC13	Polyurethane black paint, Chemglaze Z306	Bleached
207	L3IV-9-45-TC13	Polyurethane black paint: Chemglaze Z306	Bleached, cratered
208	L3IV 9-46-TC1	Teflon FEP polymer coating Spraylon 7075	Eroded, cratered
209	L3IV 9 47-TC1	Teflon FEP polymer coating Spraylon 7075	Eroded
210	L3IV-9-48 TC2	Silicone paint black vacuum distilled RTV 602	Embrittled, contaminated (stain), cratered
211	L3IV-9-49 TC2	Silicone paint black vacuum distilled RTV 602	Embrittled, contaminated (stain), cratered
212	L3IV-9-50-TC3	White silicone high temperature paint Sperex AP-101	Discolored (+), cratered
213	L3IV 9 51 TC3	White silicone high temperature paint Sperex AP-101	Discolored (+)
214	L3IV-9-52-TC6	Ceramic coating white borated silica	Discolored, cracked, contaminated (particle)
215	L3IV-9-53 TC6	Ceramic coating white borated silica	Discolored, cracked, contaminated (particle)
216	L3IV-9-54-TC7	Ceramic coating black borated silica coating	Bleached, cratered
217	L3IV 9-55 TC7	Ceramic coating black borated silica coating	Cratered
218	L3IV-9-56-TC8	Ceramic coating black HS 4 on LI-900	Darkened, cratered
219	L3IV-9 57-TC8	Ceramic coating black HS 4 on LI-900	Darkened, contaminated (particle)
220	L3IV-9 58 TC4	Black silicone high temperature paint Sperex SP-102	Bleached, cratered

OBS	Sample ID	Description	Post-Flight Condition
221	L3IV-9-59-TC4	Black silicone high temperature paint - Sperex SP-102	Bleached
222	L3IV 9-60 TC5	Teflon FEP polymer coating Spraylon 7075	Eroded, discolored (+), flaked, cratered
223	L3IV 9 61 TC5	Teflon FEP polymer coating Spraylon 7075	Eroded, discolored (+), flaked, cratered
224	L3IV 8 62 183 3	Thin film solar cell. CuInSe2/CdS	Missing, cratered
225	L3IV 8 63 3	Thin solar cell standard Si	Missing, cratered
226	L3IV 8 64 8	Composite to composite (T 300/934) adhesive joint/Hysol EA 9628 epoxy	Eroded, cratered
227	L3IV 8 65 10	Composite to composite (T 300/934) adhesive joint/Hysol EA 9628 epoxy	Eroded, cratered
228	L3IV 8 66 12	Composite to composite (T 300/934) adhesive joint/Hysol EA 9628 epoxy	Eroded, cratered
229	L3IV 8 67 24	Graphite/polysulfone (T 300/ P 1700 polysulfone resin [0 / 90])	Eroded, cratered
230	L3IV 8 68 12	Graphite/epoxy (conditioned) (T 300 unidirectional tape/Fiberite EA 934 epoxy resin [0])	Eroded, cratered
231	L3IV 15 69 Zt	Rhodium coated glassy carbon substrate	Cratered
232	L3IV 17 70 L	Thermoluminescent dosimeter, LiF	Discolored, microfractured, cratered
233	L3IV 16 71 D	HA-43 polyarylacetylene/ polyphenylquinoxyline blend/Low temp PAN composite	Eroded ( ), cratered
234	L3IV 16 72 A	HA 43 polyarylacetylene (PAA)/T300 carbon fabric composite	Oxidized
235	L3IV 16 73 B	Aerospace polyarylacetylene (PAA)/T300 carbon fabric composite	Eroded (-)
236	L3IV 16 74 C	HA-43 polyarylacetylene (PAA)/polyphenylquinoxyline (PPO) blend/T300 carbon fabric composite	Eroded
236 5	L3 V	Composite panel graphite/934 [O2, ±45, O2 +45, 90, 0]s with 3 coatings A276, Z306, S13GLO	Eroded (+) cratered
237	L6III 9 1 TC14 4	LMSC modified Cotronics 931 coating on Ta substrate	Eroded (+)
238	L6III 9 2 TC15 21	JB-1 black coating on Ta substrate	Crazed (+), flaked ( ) cratered
239	L6III 9 3 TC16 4	Vestar coating on Al substrate	Discolored (+), crazed (+) flaked
240	L6III 9 4 TC17 1	GE SHC 1010 coating on Al substrate	Discolored
241	L6III 10 5 GL2 1	Mirror graphite/glass Celion 6000/borosilicate glass	Crazed
242	L6III 10 6 AL8 7	Mirror, GY70/201/2024 clad (6 ply)	Unchanged
243	L6III 9 7 TC18 1	Tedlar (400BS30W11) bonded to Al with Isolack Y9469	Eroded, discolored, cratered
244	L6III 9 8 TC19 1	Black oxide coating on 304 stainless steel substrate	Bleached
245	L6III 10 9 MG7 3	Strip, VS0054/EZ33A/AZ31B clad [0 ± 60°]s (6 ply)	Dulled
246	L6III 10 10 AL7 2	Strip, GY70/201/2024 clad [0 ± 60°]s (6 ply)	Dulled
247	L6III 10 11 MG7 1	Strip, VS0054/EZ33A/AZ31B clad, [0 ± 60°]s (6 ply), epsl meas, SG 20	Unchanged
248	L6III 10 12 AL7 1	Strip, GY70/201/2024 (6 ply) clad, SG19 [0 ± 60°]s, epsl meas	Hazed (-), cratered
249 01	L6III 10 13 1	Wire, P100/AZ61A (Ti + B)	Contaminated (stain)
249 02	L6III 10 13 2	Wire, P100/AZ61A (Ti + B)	Contaminated (stain)
249 03	L6III 10 13 3	Wire, P100/AZ61A (Ti + B)	Contaminated (stain)
249 04	L6III 10 13 4	Wire, P100/AZ61A (Ti + B)	Contaminated (stain)
250 01	L6III 10 13 5	Wire, P55(TiO2)/6061Al (Ti + B)	Contaminated (stain) (-)
250 02	L6III 10 13 6	Wire, P55(TiO2)/6061Al (Ti + B)	Contaminated (stain)
251 01	L6III 10 13 7	Wire, GY70(6T)/201	Contaminated (stain)
251 02	L6III 10 13 8	Wire, GY70(6T)/201	Contaminated (stain)
252 01	L6III 10 13 9	Wire, P55/6061Al (Ti + B)	Contaminated (stain)
252 02	L6III 10 13 10	Wire P55/6061Al (Ti + B)	Contaminated (stain)
253	L6III 10 13 11	Wire, T300/6061 Al	Contaminated (stain, particle)

DSS	Sample ID	Description	Post-Flight Condition
254	L6III-10-14-12	Wire T300/6061Al	Contaminated (stain)
255 01	L6III 10 14 13	Wire. P100/6061Al (Ti + B)	Contaminated (stain)
255 02	L6III-10 14 14	Wire P100/6061Al (Ti + B)	Contaminated (stain)
255 03	L6III-10-14-15	Wire P100/6061Al (Ti + B)	Contaminated (stain)
255 04	L6III 10 14 16	Wire P100/6061Al (Ti + B)	Contaminated (stain)
256 01	L6III 10 14 17	Wire. P55(10K)6061Al	Contaminated (stain)
256 02	L6III 10 14 18	Wire P55(10K)6061Al	Contaminated (stain)
256 03	L6III 10 14 19	Wire P55(10K)6061Al	Contaminated (stain)
256 04	L6III 10 14 20	Wire P55(10K)6061Al	Contaminated (stain)
257 01	L6III 10 14 21	Wire P100/AZ31B (Ti + B)	Contaminated (stain)
257 02	L6III 10 14 22	Wire P100/AZ31B (Ti + B)	Contaminated (stain)
258	L6III 10 15 AL3 2	Strip GY70/201/2024 clad (1 ply). (0) epsl meas. SG18	Hazed, contaminated (stain)
259	L6III 10 16 AL14 10	Strip. VSB32/6061 T6/6061 Al clad (0) (1 ply). SG17, CTS4, epsl meas	Hazed, contaminated (stain)
260	L6III 10 17 AL15 1	Strip. VSB32/6061-T6/6061 Al clad. (90°). epsl meas. SG16	Distorted, hazed, contaminated (stain)
261	L6III 10 18 AL3 3	Strip. GY70/201/2024 clad. (0) (1 ply)	Hazed, contaminated (stain)
262	L6III 10 19 AL3 4	Strip GY70/201/2024 clad. (0). (1 ply)	Hazed, contaminated (stain), cratered
263	L6III 10 20 AL4 1	Strip. GY70/201/2024 clad. (90°)	Hazed, contaminated (stain)
264	L6III 10 21 AL4 2	Strip. GY70/201/2024 clad. (90°)	Hazed, contaminated (stain)
265	L6III 10 22 AL5 9	Strip. GY70/201/2024 clad. (0). (1 ply)	Hazed, contaminated (stain), cratered
266	L6III 10 23 AL5 1	Strip. GY70/201/2024 clad. (0). (1 ply)	Hazed, contaminated (stain)
267	L6III 10 24 EP1 2	Strip. GY70/X-30 [0/45/90/135]4	Eroded, contaminated (stain)
268	L6III 10 25 AL5 2	Strip GY70/201/2024 clad. (0). (1 ply)	Hazed, contaminated (stain)
269	L6III 10 26 PS5 1	Rivoted lap. W-722(Graphite/Glass fabric)/P1700/TiO2 coating	Eroded, contaminated (stain)
270	L6III 10 27 PS5 2	Rivoted lap W-722(Graphite/Glass fabric)/P1700/TiO2 coating	Eroded, contaminated (stain), cratered
271	L6III 10-28-SS1-7	Strip. Invar LR-35	Hazed, contaminated (stain)
272	L6III-9-29-S0-0	Strip. Soldal O coating (A. DC93-500/ B. R-2501)	Crazed, wrinkled, cratered
274	L6III-10-31-PS2-4	Strip. W-722 (Graphite/Glass fabric)/P1700	Darkened, flaked, contamineated (stain), cratered
275	L6III 10 32 PS3-1	Strip. W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	Contaminated (stain), wrinkled
276	L6III 10-33 PS3-2	Strip. W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	Contaminated (stain), wrinkled, cratered
277	L6III 10 34 EP3 3	Strip. T300 tape/934. (0)	Eroded, contaminated (stain), cratered
278	L6III-10-35-EP3-4	Strip. T300 tape/934. (0)	Eroded, contaminated (stain)
279	L6III-10-36-MG9-L1	Strip. P100/AZ91C/AZ61A. (0°)	Distorted, contaminated (stain)
280	L6III 10 37-23	Wire. P100/AZ31B (Ti + B)	Contaminated (stain)
281 01	L6III-10 37-24	Wire. P55 (10K)/AZ91C	Discolored
281 02	L6III-10-37-25	Wire. P55 (10K)/AZ91C	Unchanged
281 03	L6III-10-37-26	Wire. P55 (10K)/AZ91C	Unchanged
282 01	L6III-10-38 27	Wire. SiC/6061 Al	Contaminated (stain)
282 02	L6III-10-38-28	Wire. SiC/6061 Al	Distorted, contaminated (stain)
282 03	L6III 10-38-29	Wire. SiC/6061 Al	Distorted, contaminated (stain)
282 04	L6III 10-38-30	Wire. SiC/6061 Al	Contaminated (stain)

DB#	Sample ID	Description	Post-Flight Condition
282 05	L6III-10-38 31	Wire. SiC/6061 Al	Contaminated (stain)
282 06	L5III-10-38-32	Wire. SiC/6061 Al	Contaminated (stain)
282 07	L6III-10-38-33	Wire. SiC/6061 Al	Contaminated (stain)
282 08	L6III 10 38 34	Wire. SiC/6061 Al	Contaminated (stain)
282 09	L6III-10-38 35	Wire SiC/6061 Al	Contaminated (stain)
282 1	L6III 10 38 36	Wire SiC/6061 Al	Contaminated (stain)
282 11	L6III 10 38 37	Wire SiC/6061 Al	Unchanged
282 12	L6III 10 38 38	Wire SiC/6061 Al	Contaminated (stain)
282 13	L6III 10 38 39	Wire SiC/6061 Al	Unchanged
282 14	L6III 10-38 40	Wire SiC/6061 Al	Distorted
282 15	L6III 10 38 41	Wire SiC/6061 Al	Unchanged
282 16	L6III 10 38 42	Wire SiC/6061 Al	Unchanged
282 17	L6III 10 38 43	Wire SiC/6061 Al	Distorted (-)
282 18	L6III 10 38 44	Wire. SiC/6061 Al	Cratered
283	L6III 10 39 AL15 8	Strip. VSB32/6061 T6 Al/6061 clad (90). epsl meas. SG15	Distorted
284	L6III 10 40 MG3 17	Strip. VS0054/EZ33A/AZ31B (0). epsl meas. SG14. CTS3	Distorted
285	L6III 10 41 MG5 23	Strip. VS0054-EZ33A/AZ31B (0). epsl meas. SG13 clad	Hazed
286	L6III 10-42 AL12-1	Strip. VSB32/6061-T6 Al/6061 clad (0)	Dulled (-). contaminated (stain). cratered
287	L6III-10-43-AL6-1	Strip. GY70/201/2024 clad (90)	Dulled (-). cratered
288	L6III 10 44-AL6-5	Strip. GY70/201/2024 clad (90)	Crazed. wrinkled. cratered
289	L6III 9 45-S0 G	Strip. Soldal G coating (A. DC93-500/ B. R-2500)	Distorted
291	L6III 10 47-MG9 L2	Strip. P100/AZ91C/AZ61A (0°)	Eroded. contaminated (stain)
292	L6III 10-48-PS3 5	Strip. W-722(Graphite/Glass fabric)/P1700/TiO2 coating	Contaminated (stain)
293	L6III 10-49-PS4 1	Strip. W-722(Graphite/Glass fabric)/P1700/ZnO coating	Eroded. contaminated (stain)
294	L6III 10 50 PS5 5	Rivoted lap W-722(Graphite/Glass fabric)/P1700/TiO2 coating	Eroded. contaminated (stain)
295	L6III 10-51-PS6-1	Rivoted lap W-722Graphite/Glass fabric)/P1700/ZnO coating	Contaminated (stain)
296	L6III 10-52-PS4-3	Strip. W-722(Graphite/Glass fabric)/P1700/ZnO coating	Contaminated (stain)
297	L6III 10-53-PS4 4	Strip. W-722(Graphite/Glass fabric)/P1700/ZnO coating	Eroded
298	L6III-10-54-GL1-1	Strip. graphite/glass Celion 6000/borosilicate glass	Eroded. contaminated (stain)
299	L6III-10-55-EP12-1	Strip. P75S/934 (0/145/90/135)S2	Eroded. contaminated (stain)
300	L6III-10-56-EP12-2	Strip. P75S/934 (O/45/90/135)S2	Eroded
301	L6III-10-57-EP4-4	Strip. AS/3501-6 (0)	Eroded. darkened
302	L6III 10 58-PS2-3	Strip. W-722(Graphite/Glass fabric)/P1700	Hazed (-). contaminated (stain)
303	L6III-10-59-AL12-2	Strip. VSB32/6061-T6/6061 Al clad. (0)	Hazed (-). contaminated (stain)
304	L6III-10-60-AL12-3	Strip. VSB32/6061-T6/6061 Al clad. (0)	Unchanged
305	L6III 9-61-S0-A	Strip. Soldal A coating: (A. Electrodag 502 / B. Electrodag 501)	Distorted. corroded
307	L6III-10-63-SS1-1	Strip. Invar LR35. epsilon meas.. SG12	Distorted. contaminated (stain)
308	L6III-10-64-SS1 3	Strip. Invar LR35. epsilon meas.. SG11. CTS 2	Eroded
309	L6III-10-65-PS7	Strip. T300/polysulfone/TiO2 coating. epsilon meas. SG10	Eroded
310	L6III-10-66-EP3 1	Strip. T300 tape/934 (0). epsilon meas.. SG9. CTS 1	

DBS	Sample ID	Description	Post-Flight Condition
311	L6III-10-67-PS2-1	Strip. W 722(Graphite/Glass fabric)/P1700. epsilon meas .SG8	Eroded, discolored
312	L6III-10-68-PS1-1	Strip. T300 Fabric/P1700. epsilon meas . SG7. [0/90]	Eroded, cratered
313	L6III-10-69 MG3-5	Strip VS0054/EZ33A/AZ31B clad. (0)	Distorted
314	L6III 10 70 MG9 T2	Strip P10C/AZ91C/AZ61A (90)	Distorted, dulled
315	L6III 10 71 MG3 1	Strip VS0054/EZ33A/AZ31B clad. (0)	Distorted, dulled
316	L6III 10 72 EP13 1	Strip GY70/934 (0.45.90.135)S2	Eroded
317	L6III 10 73 MG9 T6	Strip P100/AZ91C/AZ61A (90)	Distorted, dulled
318	L6III 10 74 AL6 9	Strip. GY70/201/2024 clad (90)	Dulled, cratered
319	L6III 10 75 MG5 6	Strip VS0054/EZ33A/AZ31B clad. (0)	Dulled, cratered
320	L6III 10 76 EP13 2	Strip GY70/934 (0/45/90/135)S2	Eroded
321	L6III 10 77 EP15 1	Strip T300/5208/ZnO coating	Discolored, contaminated (stain)
322	L6III 10 78 AL14 1	Strip VSB32/6061 T6/6061 Al clad (0)	Hazed, cratered
323	L6III 10 79 AL14 14	Strip VSB32/6061 T6/6061 Al clad (0)	Dulled
324	L6III 10 80 EP10 1	Strip. E-glass 120 Fabric/X904B. (0)	Eroded, cratered
325	L6III 10 81 PS6 3	Rivoted tap 722(Graphite/Glass fabric) P1700/ZnO coating	Eroded, cratered
326	L6III 10 82 PS6-4	Rivoted tap. 722(Graphite/Glass weave) P1700/ZnO coating	Eroded
327	L6III 10 83 EP5 1	Strip. GY70/X904B. (0)	Eroded
328	L6III 10 84 EP6 1	Strip GY70/X904B. (0/90/90/0)	Eroded, cratered
329	L6III 10 85 EP7 1	Strip. GY70/X904B. [+45/(-45)2/+45]4	Eroded, cratered
330	L6III 10 86-EP8 1	Strip. HMS/3501-5A. (0/90/90/0)4	Eroded, cratered
331	L6III 10-87-EP9 1	Strip. HMS/3501-5A. (0)	Eroded, cratered
332	L6III-10-88 PI1 3	Strip. Celion 6000/PMR-15 (0)	Distorted, eroded, cratered
333	L6III 10 89 PI1 4	Strip. Celion 6000/PMR-15(0)	Distorted, eroded, cratered
334	L6III 10 90-EP22-1	Strip GY70/CE339 (0/45/90/135)S2	Eroded, cratered
335	L6III 10 91 PS1 3	Strip. T300 Fabric/P1700. (0,90)	Eroded
336	L6III 10 92-MG6-1	Strip. VS0054/EZ33A/AZ31B clad. (90)	Distorted, dulled, discolored
337	L6III 10-93-AL32-4	Strip. SiC fibers/Al	Unchanged
338	L6III-10 94-MG6-9	Strip. VS0054/EZ33A/AZ31B clad. (90)	Dulled, contaminated (stain), cracked
339	L6III 10-95 AL31 1	Strip. SiC whiskers/6061 Al	Dulled
340	L6III-10 96-AL30-2	Strip. SiC whiskers/2124 Al	Unchanged
341	L6III 10 97-GL3-1	Strip. graphite/glass Celion 6000/borosilicate glass	Cratered
342	L6III 10-98 EP2-1	Strip. GY70/X-30/Sn-In eut. (0/45/90/135)4	Cratered
343	L6III-10-99-EP2-2	Strip. GY70/X-30/Sn-In eut.(0/45/90/135)4	Dulled
344	L6III-10 100-EP4-2	Strip. AS/3501-6(0) epsilon meas., SG6	Eroded, cratered
345	L6III-10-101-PI1-1	Strip. Celion 6000/PMR-15, epsilon meas., SG5 (0)	Distorted eroded, cratered
346	L6III-10-102-EP1-1	Strip. GY70/X-30/Sn-In eut (0/45/90/135)4 epsilon meas . SG4	Eroded (+), cratered
347	L6III-10-103-PS11 1	Strip. T300/polyether sulfone, epsilon meas., SG3	Eroded (+), cratered
348	L6III-10-104-PI5-2	Strip. T300/V378A, epsilon meas., SG2 (0/45/90/135)S2	Eroded (+), cratered
349	L6III 10-105 PI2-1	Strip. Graphite/LARC-160, epsilon meas., SG1	Eroded (+), cratered
350	L6III-10 106-AL33 2	Strip. P100/201/2024 (+20°/-20°)S	Unchanged

DB#	Sample ID	Description	Post-Flight Condition
351	L6III-10-107-PS8	Strip. T300/P1700/TiO2 coating	Discolored (-), cratered
352	L6III-10-108-PS9	Strip. T300/P1700/Al flake	Unchanged
353	L6III-10-109-PS10	Strip. T300/P1700/ZnO coating	Discolored (-)
354	L6III 10 110-EP22-7	Strip. GY70/CE339 (0/45/90/135)S2	Oxidized
355	L6III 10 111 MG10-5	Strip. P100/AZ91C/AZ61A (+10°/ 10°)S	Dulled
356	L6III-10 112 MG10-7	Strip. P100/AZ91C/AZ61A (+10°/-10°)S	Dulled
357	L6III 10 113 AL33-6	Strip. P100/201/2024 (+20°/-20°)S	Unchanged
358	L6III 10 114 EP21 1	Strip P75S/CE399 (0/45/90/135)S4	Eroded
359	L6III 10 115 EP21 2	Strip. P75S/CE339 (0/45/90/135)S4	Eroded
360	L6III 10 116 AL32 8	Strip SiC fibers/Al	Unchanged
361	L6III 10 117 PI5 1	Strip. T300/V378A (0/45/90/135)S2	Eroded
362	L6III 10 118 PI5 4	Strip T300/V378A (0/45/90/135)S2	Eroded
363	L6III 10 119 PS1-9	Strip T300 Fabric/P1700 (0/90)	Eroded
364	L6III 10 120 EP4 5	Strip. AS/3501-6 (0)	Eroded
365	L6III-10 121 PI2 3	Strip. graphite/LARC 160	Oxidized
366	L6III-10 122 PI3	Strip. Celion 6000/polyimide	Discolored
367	L6III 10 123-AL8 4	Mirror. GY70/201/2024 clad(0/±60)s	Contaminated (stain)
368	L6III 9 124-TC14 5	Ta substrate/LMSC modified Cotronics 931 coating	Unchanged
369	L6III-9 125-TC15 24	Ta substrate/JB-1 black coating	Crazed, darkened
370	L6III 9 126-TC16 5	Al substrate/Vestar coating	Crazed, flaked
371	L6III-9-127-TC17 2	Al substrate/GE-SHC 1010 coating	Hazed (-), cracked
372	L6III 9-128 TC19 2	Stainless steel substrate, black oxide coating	Dulled
373	L6III 9-129-TC18-2	Tedlar (400BS30W11) bonded to Al with Isolack Y9469	Contaminated (particle)
374	L6III 10 130 AL8 2	Mirror. GY70/201/2024 clad (0/±60°)s	Unchanged
375	L6III 10 131 MG7-7	Strip. VS0054/EZ33A/AZ31B clad. (0/±60°)s	Dulled
376	L6III 10 132 AL7-5	Strip. GY70/201/2024 clad. (0/±60°)s	Unchanged
377	L6III-9 133-C48-7	Strip . P75S/934. 102-15A	Unchanged
378	L6III 9 133 C48-10	Strip . P75S/934. 102-15A	Unchanged
379	L6III-9-134-C47-9	Strip. P75S/F593. 102-270	Contaminated (stain)
380	L6III 9-134-C47-12	Strip. P75S/F593. 102-270	Contaminated (stain)
381	L6III-10-135-1	Wire. P100/AZ61A (Ti + B)	Unchanged
382	L6III-10-135-2	Wire. P55 (Ti02)/6061 Al (Ti + B)	Unchanged
383	L6III-10-135-3	Wire. GY70 (8T)/201	Unchanged
384	L6III-10-135-4	Wire. P55/6061Al (Ti + B)	Unchanged
385	L6III-10-135-5	Wire. T300/6061Al	Contaminated (stain)
386	L6III-10-135-6	Wire. P100/6061 Al (Ti + B)	Unchanged
387	L6III-10-135-7	Wire. P55 (10K)/6061 Al	Unchanged
388	L6III-10 135-8	Wire. P100/AZ31B (Ti + B)	Unchanged
389	L6III-10-135-9	Wire. P55 (10K)/ AZ91C	Unchanged
390	L6III-10-135-10	Wire. SiC/6061 Al	Unchanged

OBs	Sample ID	Description	Post-Flight Condition
391 01	L6III 10-136 11	Wire. SiC/6061 Al	Unchanged
391 02	L6III-10-136-12	Wire. SiC/6061 Al	Unchanged
391 03	L6III-10-136-13	Wire. SiC/6061 Al	Unchanged
391 04	L6III-10 136-14	Wire. SiC/6061 Al	Unchanged
393	L6III 10 138 AL3 8	Strip GY70/201/2024 clad. (0°)	Contaminated (stain)
394	L6III-10 139 AL3 9	Strip GY70/201/2024 clad. (0)	Unchanged
395	L6III 10 140 AL4 5	Strip GY70/201/2024 clad. (90°)	Contaminated (stain)
396	L6III 10 141 AL4 6	Strip. GY70/201/2024 clad. (90)	Contaminated (stain)
397	L6III 10 142 AL15-1(	Strip VSB32/6061-T6/6061 Al clad. (90)	Contaminated (stain)
398	L6III 10 143 AL5 3	Strip GY70/201/2024 clad. (0 ·	Contaminated (stain)
399	L6III 10 144 AL5 4	Strip GY70/201/2024 clad. (0°)	Unchanged
400	L6III 10 145 AL5 10	Strip. GY70/201/2024 clad. (0°)	Contaminated (stain)
401	L6III 10 146 EP1 5	Strip. GY70/X-30. (0/45/90/135)4	Contaminated (stain)
402	L6III 10 147 EP1 6	Strip GY70/X-30. (0/45/90/135)4	Contaminated (stain)
403	L6III 10-148-PS5-7	Rivoted lap. W 722(Graphite/Glass fabric)/P1700/TiO2 coating	Oxidized
404	L6III 10 149-EP22 11	Strip GY70 CE339 (0/45/90/135)S2	Contaminated (stain)
405	L6III 10-150-SS1 8	Strip. Invar LR35	Contaminated (stain)
406	L6III 10 151 PS2 7	Strip. W 722(Graphite/Glass fabric)/P1700	Contaminated (stain)
407	L6III 10-152 PS2-8	Strip. W 722(Graphite/Glass fabric)/P1700	Contaminated (stain)
408	L6III 10 153-PS2 9	Strip. W 722(Graphite/Glass fabric)/P1700	Unchanged
409	L6III-10-154-PS3-7	Strip. W-722(Graphite/Glass fabric)/P1700/TiO2 coating	Contaminated (stain)
410	L6III 10 155-PS3-8	Strip. W-722(Graphite/Glass fabric)/P1700/TiO2 coating	Contaminated (stain)
411	L6III-10-156-EP3-7	Strip. T300 tape/934. (0)	Contaminated (stain)
412	L6III 10 157 EP3 8	Strip. T300 tape/934. (0)	Contaminated (stain)
413	L6III 10 158 EP3 9	Strip. T300 tape/934. (0)	Crazed, contaminated (stain)
416	L6III-10-161-AL6-2	Strip. GY70/201/2024 clad. (90°)	Unchanged
417	L6III-10-162-AL6-6	Strip. GY70/201/2024 clad. (90°)	Unchanged
418	L6III-10-163-AL6-10	Strip. GY70/201/2024 clad. (90°)	Unchanged
419	L6III-10-164-AL12-4	Strip. VSB32/6061-T6/6061 Al (0)	Unchanged
420	L6III-10-165-AL12-5	Strip. VSB32/6061-T6/6061 Al (0)	Unchanged
421	L6III-10-166-AL12-6	Strip. VSB32/6061-T6/6061 Al (0)	Unchanged
422	L6III-10-167-MG10-1	Strip. P100/AZ91C/AZ61A (+10°/-10°)S	Dulled
423	L6III-10-168-MG10-2	Strip. P100/AZ91C/AZ61A (+10°/-10°)S	Unchanged
424	L6III-10-169-MG5-12	Strip. VS/0054/EZ33A/AZ31B clad (0°)	Unchanged
425	L6III-10-170-PS3-9	Strip. W-722(Graphite/Glass fabric)/P1700/TiO2 coating	Unchanged
426	L6III-10-171-PS4-7	Strip. W-722(Graphite/Glass fabric)/P1700/ZnO coating	Unchanged
427	L6III-10-172-PS4-9	Strip. W-722(Graphite/Glass fabric)/P1700/ZnO coating	Unchanged
428	L6III-10-173-PS6-7	Rivoted lap W-722(Graphite/Glass fabric)/P1700/ZnO coating	Unchanged
429	L6III-10-174-PS4 8	Strip. W-722(Graphite/Glass fabric)/P1700/ZnO coating	Unchanged
430	L6III 9 175-S0-P	Strip. Soldal P coating (A. DC93-500/ B. R-2501)	Contaminated (particle)

DBS	Sample ID	Description	Post-Flight Condition
432	L6III-10 177-EP12 5	Strip. P75S/934. (0/45/90/135)S2	Contaminated (stain)
433	L6III-10-178-EP12-6	Strip. P75S/934. (0/45/90/135)S2	Contaminated (stain)
434	L6III-10-179-EP4-8	Strip. AS/3501-6 (0)	Discolored
435	L6III-10 180-EP4-9	Strip. AS/3501-6 (0)	Discolored
436	L6III-10-181-EP4-10	Strip. AS/3501-6 (0)	Crazed, contaminated (stain)
437	L6III 10 182-PI1-7	Strip Celion 6000/PMR-15. (0)	Crazed, contaminated (stain)
438	L6III-10 183-AL14 9	Strip. VSB32/6061-T6/6061 Al clad. (0)	Unchanged
439	L6III 10 184 AL14-2	Strip VSB32/6061-T6/6061 Al clad (0)	Unchanged
440	L6III 10 185-AL14 1	Strip VSB32/6061-T6/6061 Al clad. (0)	Unchanged
441	L6III 10-186-AL15-2	Strip. VSB32/6061-T6/6061 Al clad. (90)	Unchanged
442	L6III 10 187 AL15 9	Strip. VSB32/6061-T6/6061 Al clad. (90)	Unchanged
443	L6III 10 188 EP22 3	Strip. GY70/CE339 (0/45/90/135)S2	Dulled (-)
444	L6III 10 189 AL33 3	Strip. P100/201/2024 Al (+20°/-20°)S	Unchanged
445	L6III-10-190-MG3-2	Strip VS0054/EZ33A/AZ31B. (0)	Unchanged
446	L6III-10 191-AL33-4	Strip P100/201/2024 Al (+20°/-20°)S	Unchanged
447	L6III 10 192 MG4 2	Strip. VS0054/EZ33A/AZ31B. (90)	Unchanged
448	L6III 10-193-EP13-5	Strip. GY70/934 (0/45/90/135)S2	Contaminated (stain)
449	L6III 10 194-MG5-2	Strip. VS0054/EZ33A/AZ31B. (0)	Unchanged
450	L6III 10 195-MG3-3	Strip. VS0054/EZ33/AZ31BA clad (0)	Unchanged
451	L6III-10 196 MG5-8	Strip. VS0054/EZ33A/AZ31B clad (0)	Contaminated (stain)
452	L6III-10-197-EP13-6	Strip. GY70/934 (0/45/90/135)S2	Contaminated (stain)
453	L6III-10-198-EP17-1	Strip. T300/2 mil-3M 113 viscoelatic tape/5208	Contaminated (stain)
454	L6III-10-199-EP10-3	Strip. E-glass 120 Fabric/X9043. (0)	Unchanged
455	L6III 10-200-EP16-2	Strip. T-300/5208	Contaminated (stain)
456	L6III 10 201-EP11 2	Strip HMS/3501-5A [+45/(-45)2/+45]4T	Contaminated (stain)
457	L6III 10-202-EP8-2	Strip. HMS/3501-5A. [0/(90)2/0]4T	Contaminated (stain)
458	L6III-10-203-EP9-2	Strip. HMS/3501-5A [(0)16]T	Contaminated (stain)
459	L6III-10-204-EP5-3	Strip. GY70/X904B. (0°)	Contaminated (stain)
460	L6III-10-205-EP6-3	Strip. GY70/X904B. (0°/90/90/0)	Contaminated (stain)
461	L6III-10-206-EP7-3	Strip. GY70/X904B. [(+45/(-45)2/+45]4T	Contaminated (stain)
462	L6III-10-207-PS1-5	Strip. T300 Fabric/P-1700 (0, 90)	Contaminated (stain)
463	L6III-10-208-PS1-6	Strip. T300 Fabric/P-1700 (0, 90)	Contaminated (stain)
464	L6III-10-209-GL3-2	Strip. graphite glass: Celion 6000/borosilicate glass	Contaminated (stain)
468	L6III-10-213-MG6-8	Strip. VS0054/EZ33A/AZ31B. (90)	Contaminated (stain)
469	L6III-10-214-MG6-2	Strip. VS0054/EZ33A/AZ31B clad. (90)	Contaminated (stain)
470	L6III-10-215-MG5-15	Strip. VS0054/EZ33A/AZ31B clad. (90)	Contaminated (stain)
471	L6III-10-216-MG3-15	Strip. VS0054EZ33A/AZ31B. (0)	Contaminated (stain)
472	L6III-9-217-S0-8	Strip. Soldal B coating: (A. Electrodag 502 / B. Electrodag 501)	Contaminated (stain)
474	L6III-10-219-MG9-L3	Strip. P100/AZ91C/AZ61A (0)	Contaminated (stain)
475	L6III-10-220-MG9-L5	Strip. P100/AZ91C/AZ61A (0	Contaminated (stain)

DB#	Sample ID	Description	Post-Flight Condition
476	L6III-10-221 EP21 15	Strip. P75S/CE-339 (0/45/90/135)S4	Contaminated (stain)
477	L6III-10-222-EP2-3	Strip. GY70/X-30/Sn-In eut. (0/45/90/135)4	Contaminated (stain)
478	L6III-10-223-EP2-4	Strip. GY70/X-30 (0/45/90/135)4	Contaminated (stain)
479	L6III 10-224-EP22 9	Strip. GY70/CE-339 (0/45/90/135)S2	Contaminated (stain)
480	L6III-10 225-AL31-2	Strip. SiC whiskers/6061	Contaminated (stain)
481	L6III-10 226-AL30 4	Strip. SiC whiskers/2124	Contaminated (stain)
482	L6III-10-227-AL32-1	Strip. SiC fibers/Al	Contaminated (stain)
483	L6III-10 228-AL32 2	Strip. SiC fibers/Al	Contaminated (stain)
484	L6III-10 229-EP21-5	Strip P75S/CE-339 (0/45/90/135)S4	Contaminated (stain)
485	L6III 10 230 EP21-6	Strip P75S/CE-339 (0/45/90/135)S4	Contaminated (stain)
486	L6III-10 231-PI5 7	Strip T300/V378A (16 ply)	Contaminated (stain)
487	L6III 10 232 PI5 8	Strip T300/V378A (16 ply)	Contaminated (stain)
488	L6III 10 233-PI5-9	Strip. T300/V378A (16 ply)	Contaminated (stain)
489	L6III 10 234 PS1-11	Strip. T300 Fabric/P1700 (0, 90)	Contaminated (stain)
490	L6III-10 235-PI2 5	Strip Graphite/LARC-16	Contaminated (stain)
491	L6III 10 236-PI2 6	Strip. Graphite/LARC-160	Contaminated (stain)
492	L6III 10-237 PI2 7	Strip Graphite/LARC-160	Contaminated (stain)
493	L6III 9-238-S0 H	Strip. Soldal H coating. (A. DC93-500; B. R-2500)	Crazed, contaminated (particle, stain)
495	L6III 10 240-EP13-1	Strip. GY70/934 (0/45/90/135)S2	Contaminated (stain)
499	L6III 10 244 AL14 6	Strip. VSB32/6061-T6/6061 Al clad (0)	Contaminated (stain)
500	L6VI-7 1 46 11	Mirror. Ag + (Al2O3/Si)^3 multi-layer coating on polished molybdenum substrate	Microfractured, corroded, cratered
501	L6VI-1 2 C33	WO3 (UV treated)/polyurethane/Al substrate	Eroded, discolored
502	L6VI 1 3-B33	WO3 (UV treated)+IR dye/Al substrate	Eroded
503	L6VI 1 4 A33	WO3 (UV treated)/polyurethane/Al substrate	Eroded
504	L6VI 11 5 BG02	Low scatter black glass	Hazed
505	L6VI-11-6 S02	Aluminized fused silica mirror	Contaminated (particle)
506	L6VI-5-7-A1	Quartz fabric 581 (Astroquartz)/Teflon FEP/Al General Electric	Contaminated (stain)
507	L6VI-5-8 A2	Indium-Tin oxide/Teflon FEP/Ag/Inconel, 5 mil, Sheldahl	Hazed
508	L6VI-11 9-N02	Low scatter nickel mirror	Hazed
509	L6VI-11-10-C82-4	Gold coated nickel mirror	Corroded
510	L6VI 5 11 A3LC	Porcelain enamel on Al, NASA Marshall Space Flight Center	Contaminated (particle)
511	L6VI-5-12-A4	Indium-Tin oxide/Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	Hazed
512	L6VI 5-13-A5B	Black paint, D111, IITRI	Crazed
513	L6VI-6-14-IV	Ag/Teflon FEP covered cassette holding four laser communication components	Cover: buckled
514	L6VI-11-15-2	ZnSe infrared plate	Contaminated (spatter)
515	L6VI-5-16-A6	7μm quartz fabric chemical and heat cleaned (+450°C), adhesive bond, General Electric	Contaminated (stain)
516	L6VI-5 17-A7	Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	Hazed
517	L6VI-8-18-S4	Silicon nitride, 2-layer sandwich (foam layer 0.45" thick, skin layer 0.03" thick)	Unchanged
518	L6VI-8-19 F1	Silicon nitride foam	Unchanged
519	L6VI 8 20 S5	Silicon nitride, 2-layer sandwich (foam layer 0.45" thick, skin layer 0.03" thick)	Unchanged

DBS	Sample ID	Description	Post-Flight Condition
520	L6VI-4-21-X1	Conventional silicon cells, 5 cell string	Microfractured
521	L6VI-11-22-2	Corning 7940 second surface aluminum mirror	Hazed
522	L6VI-5-23-B1	Optical Solar Reflector, OCLI SI-100	Corroded
523	L6VI 5 24 B4	Al mirror/glass	Microfractured
524	L6VI-5-25-B5	Ag mirror/Al	Corroded (+)
525	L6VI-5-26 B3	Au muror/Al	Discolored
526	L6VI-12-27-3	Thermoluminescent dosimeter, LiF	Buckled
527	L6VI 5 28 B2	Optical Solar Reflector, OCLI SI-100 with conductive coating	Corroded
528	L6VI 5 29 A8	Teflon FEP/Ag/Inconel 5 mil, Sheldahl	Hazed
529	L6VI 5 30 A9	In2O3/Teflon FEP/Ag/Inconel, 5 mil, General Electric	Microfractured
530	L6VI 5 31 A10	Kapton/Al, 1 mil, Sheldahl	Eroded, cratered
531	L6VI 5 32 A11	Kapton/Al 5 mil, Sheldahl	Eroded
532	L6VI 5-33 A12	In2O3/Kapton/Al, 5 mil, General Electric	Microfractured
533	L6VI 5 34 A13	White paint, Z93, IITRI	Unchanged
534	L6VI 5 35 A14	White paint S13GLO IITRI	Discolored ( )
535	L6VI 5 36 A15	White paint, YB-71, IITRI	Crystallized
536	L6VI-5-37-A16	White paint NS 43G, NASA Goddard Space Flight Center	Discolored ( )
537	L6VI-5-38-A17	White paint, Eu2O3/RTV 602, ML101, Air Force Materials Laboratory	Discolored ( )
538	L6VI 5 39 A18	White paint, alpha-Al2O3/RTV 602, ML101, Air Force Materials Laboratory	Discolored (+), contaminated (particle)
539	L6VI 5 40 A19	White paint, PV100 TiO2/silicone resin, ML101, Air Force Materials Laboratory	Contaminated (particle)
540	L6VI 5 41-A20	White paint TiO2/RTV 602, ML101, Air Force Materials Laboratory	Discolored (-)
541	L6VI-5 42-A21	White paint, DC92-007 TiO2/RTV 3140, Rockwell Int	Discolored, contaminated (particle)(+)
542	L6VI-5-43-A22	White paint, DC92-007 TiO2/RTV 3140, Rockwell Int	Discolored, contaminated (particle)
543	L6VI 2 44-002	Fused SiO2	Unchanged, cratered
544	L6VI 2-45 018	Fused SiO2	Unchanged
545	L6VI 2 46 019	Fused SiO2	Contaminated (particle)
546	L6VI-2-47-014	MgF2 coating, lambda (1 06)/2 thick/fused silica substrate	Crazed, cratered
547	L6VI 2 48 022	MgF2 coating, lambda (1 06)/2 thick/fused silica substrate	Crazed, contaminated (particle), cratered
548	L6VI-2-49-024	MgF2 coating, lambda (1.06)/2 thick/fused silica substrate	Crazed, contaminated (particle)
549	L6VI-2-50-N19	Polished molybdenum	Corroded (-), contaminated (particle)
550	L6VI 2-51-N23	Polished molybdenum	Hazed
551	L6VI-2-52-N8	Polished molybdenum	Hazed
552	L6VI-2-53-N3	ThF4/Ag/Cr coating lambda (1 06)/2 thick/ molybdenum substrate	Contaminated (particle), cratered
553	L6VI-2-54-N6	ThF4/Ag/Cr coating lambda (1.06)/2 thick/ molybdenum substrate	Hazed
554	L6VI-2-55 N14	ThF4/Ag/Cr coating lambda (1 06)/2 thick/ molybdenum substrate	Hazed
555	L6VI-2-56 8692	Diamond-turned copper, A surface	Oxidized, contaminated (particle)
556	L6VI-2-57-8683	Diamond-turned copper, B surface	Oxidized, contaminated (particle)
557	L6VI 2-58-8686	Diamond-turned copper, A surface	Oxidized, contaminated (particle)
558	L6VI-2-59-2	Diamond-turned nickel coated copper, A surface	Contaminated (particle)
559	L6VI 2 60-4	Diamond-turned nickel coated copper, A surface	Hazed, contaminated (particle)

DBS	Sample ID	Description	Post-Flight Condition
560	L6VI-2-61-6	Diamond-turned nickel coated copper, B surface	Hazed, contaminated (particle)
561	L6VI 1-62-C41	WO3 (UV treated)/polyurethane/Al substrate	Eroded, discolored
562	L6VI-1-63-B41	WO3 (UV treated)+IR dye/Al substrate	Eroded, discolored
563	L6VI 1 64-A41	WO3 (UV treated)/polyurethane/Al substrate	Eroded, discolored
564	L6VI-1-65 B52	WO3 (UV treated)+IR dye/Al substrate	Discolored (-)
565	L6VI 1 66 A52	WO3 (UV treated)/polyurethane/Al substrate	Eroded, discolored
566	L6VI 7 67-239	Mirror, Si/SiOx coating on polished molybdenum substrate	Corroded (+), hazed
567	L6VI 7 68 15	Mirror, Al + (Al2O3/ZnS)^9 multi-layer coating on polished molybdenum substrate	Hazed
568	L6VI 1 69 C52	WO3 (UV treated)/polyurethane/Al substrate	Eroded, discolored
569	T3I 1 1 C	Resonant reflector	Corroded, cratered
570	T3I 1 2 D	Circuit analog sheet	Discolored (+), cratered
571	T3I 1 3 A	Capacitive grid	Contaminated (particle, stain), cratered
572	T3I 1 4 B	Resonant window	Corroded, Contaminated (stain), cratered
573	T3I-9 5-CW1	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	Unchanged
574	T3I 9 6 CW2	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag plated stainless steel hardware	Unchanged
575	T3I 9 7 CW3	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	Unchanged
576	T3I-9-8 CW4	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	Unchanged
577	T3II 5 1 C1	Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	Roughened, embrittled
578	T3II 5-2-C2	Teflon FEP/Ag/Inconel, 5 mil, Sheldahl	Embrittled, flaked
579	T3II 5 3 C3	Kapton/Al, 1 mil, Sheldahl	Unchanged
580	T3II-5-4-C4	Kapton/Al, 5 mil, Sheldahl	Unchanged
581	T3II-5 5 C5	Teflon FEP type A, 5 mil	Embrittled, discolored
582	T3II-5-6-C6	Teflon FEP/Ag/Inconel (5 mil)/Eccobond 57C/Kapton (5 mil)	Embrittled, crazed
583	T3II-5-7-C7	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	Debonded, crazed
584	T3II 5-8-C8	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	Embrittled, crazed
585	T3II 5 9-C9	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	Debonded, crazed
586	T3II-5-10-C10	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Al/Kapton (5 mil)	Debonded, crazed
587	T3II-5-11-C11	Teflon FEP/Ag/Inconel (5 mil)/Y966/Kapton (5 mil)	Embrittled, crazed
588	T3II 5-12-C12	Teflon FEP/Ag/Inconel (5 mil)/NATO IIIC/Kapton, 8.5 mil	Roughened
589	T3II-5-13 C13	Nylon 6/6, 5 mil	Discolored, embrittled
590	T3II-5-14-C14	Teizel 500AE, 5 mil	Discolored, contaminated (particle)
591	T3II 5 15-C15	Polycarbonate, 5 mil	Discolored
592	T3II 5 16 C16	Polyphenylsulfone R-5000, 10 mil, Union Carbide	Discolored
593	T3II 5 17-B1	Optical Solar Reflector, OCLI SI-100	Discolored, contaminated (particle), corroded
594	T3II 5 18-B2	Optical Solar Reflector, OCLI SI-100 with conductive coating	Discolored, corroded
595	T3II-5-19-A1	Quartz fabric 581 (Astroquartz)/Teflon FEP/Al, General Electric	Discolored
596	T3II-5-20-A2	Indium-Tin oxide/Teflon FEP/Ag/Inconel, 5 mil, Sheldahl	Discolored, microfractured
597	T3II-5-21-A3	Porcelain enamel on Al, NASA Marshall Space Flight Center	Discolored
598	T3II 5 22-A4	Indium-Tin oxide/Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	Discolored
599	T3II-5-23-A5	Black paint, D111, IITRI	Crazed, contaminated (particle)

DBS	Sample ID	Description	Post-Flight Condition
600	T3II-5 24-A6	7 µm quartz fabric chemical and heat cleaned (+ 450°C), adhesive bond/Al, General Electric	Discolored
601	T3II-5-25 A7	Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	Hazed, buckled
602	T3II-5-26-A8	Teflon FEP/Ag/Inconel, 5 mil, Sheldahl	Hazed
603	T3II 5 27 A9	In2O3/Teflon FEP/Ag/Inconel, 5 mil, General Electric	Hazed, crazed
604	T3II-5-28 A10	Kapton/Al, 1 mil, Sheldahl	Darkened, contaminated (stain)
605	T3II 5 29 A11	Kapton/Al, 5 mil, Sheldahl	Contaminated (stain)
606	T3II 5 30 A12	In2O3/Kapton/Al, 5 mil, General Electric	Contaminated (stain)
607	T3II 5 31 A13	White paint, Z93, IITRI	Discolored, crystallized
608	T3II 5 32 A14	White paint, S13GLO, IITRI	Discolored (+)
609	T3II 5 33 A15	White paint YB 71 IITRI	Discolored (-), crystallized
610	T3II 5 34 A16	White paint, NS 43G, NASA Goddard Space Flight Center	Discolored (+), crystallized
611	T3II 5 35 A17	White paint, Eu2O3/RTV 602, ML101, Air Force Materials Laboratory	Discolored (+)
612	T3II 5 36 B3	Au mirror/Al	Darkened
613	T3II 5 37 B4	Al mirror/glass	Discolored
614	T3II 5 38 B5	Ag mirror/Al	Discolored, cratered
615	T3II 5-39-B6	Ag mirror/Al	Corroded, contaminated (stain)
616	T3II 5 40 A18	White paint, alpha-Al2O3/RTV 602, ML101, Air Force Materials Laboratory	Discolored (+)
617	T3II 5 41 A19	White paint PV100 TiO2/silicone resin, ML101, Air Force Materials Laboratory	Discolored, crazed, contaminated (particle)
618	T3II 5 42-A20	White paint TiO2/RTV 602, ML101, Air Force Materials Laboratory	Discolored (+), contaminated (particle)
619	T3II 5-43-A21	White paint, DC92-007 TiO2/RTV 3140, Rockwell Int	Discolored, wrinkled, crazed
620	T3II-5-44-A22	White paint, DC92-007 TiO2/RTV 3140, Rockwell Int	Discolored, wrinkled, contaminated (particle)
621	T3II 14 45 03	Coated quartz crystal microbalance (QCM) active, 150A In2O3/9000A Al+Al2O3	Discolored, contaminated (stain)
622	T3II 14 46 04	Coated quartz crystal microbalance (QCM) - passive, 150A ZnS/9000A Al+Al2O3	Contaminated (particle)
623	T3II-12-47-4	Thermoluminescent dosimeter, LiF	Buckled, contaminated (particle)
624	T3II 11 48 BG06	Low scatter black glass	Bleached, cratered
625	T3II-11-49-S06	Aluminized fused silica mirror	Hazed
626	T3II-11-50-N03	Low scatter nickel mirror	Contaminated (particle, stain)
627	T3II-6-51 III	Ag/Teflon FEP covered cassette containing 11 sun pumped laser coatings	Cover: roughened, discolored
628	T3II-6-52-IA&B	Ag/Teflon FEP covered cassette holding 26 laser communication coatings and optical materials	Cover: roughened, discolored
629	T3II-1-53 A7	WO3 (UV treated)/polyurethane/Al substrate	Discolored
630	T3II-1 54 B7	WO3 (UV treated)+IR dye/Al substrate	Discolored
631	T3II-1 55 C7	WO3 (UV treated)/polyurethane/Al substrate	Discolored
632	T3II 7 56 23	Mirror, Al2O3 coating, lambda/2 thick @ 2 7 µm, CaF2 substrate	Unchanged
633	T3II-4 57-3	Solar cell coating	Hazed, microfractured
634	T3II-16-58-F	Composite (unknown fiber/matrix)	Contaminated (stain)
635	T3II-7-59-2	Al2O3 coating on SiO2 substrate	Microfractured, flaked
636	T3II-7-60-4	Si coating on SiO2 substrate	Contaminated (particle)
637	T3II-7 61 7	ThF4 coating on SiO2 substrate	Microfractured
638	T3II-7 62-8	PbF2 coating on SiO2 substrate	Contaminated (particle)
639	T3II-7 63 12	As2Se3 coating on SiO2 substrate	Crazed, discolored

DBs	Sample ID	Description	Post-Flight Condition
640	T3II 7-64 11	ZnS coating on SiO2 substrate	Buckled, blistered
641	T3II 15 65 O1	Black chrome coating on molybdenum substrate	Bleached, crazed
642	T3II 15-66-P1	Rhodium foil bonded with DC 6-1104 to aluminum substrate	Discolored (-), cratered
643	T3II 15-67 Q1	Iridium foil bonded with DC 6-1104 to aluminum substrate	Discolored
644	T3II 15-68 R1	Polished molybdenum mirror	Discolored, corroded
645	T3II 15 69 S1	Sputtered black rhodium coating on polished molybdenum substrate	Bleached, contaminated (particle)
646	T3II 15 70 T1	Sputtered black iridium coating on polished molybdenum substrate	Crazed, flaked
647	T3II 15 71 U1	Sputtered black rhodium coating on polished molybdenum substrate	Crazed, flaked
648	T3II 18 72 V1	White thermal control paint YB 71/Al IITRI	Contaminated (stain)
649	T3II 18 73 W	Black thermal control paint, D111/Al IITRI	Unchanged
650	T3II 18 74 X	ZnSe crystal	Contaminated (particle)
651	T3II 18 75 Y	Polyphenylquinoxaline (PPQ) film on Al	Contaminated (particle)
652	T3II 18 76 G	HA 43 polyarylacetylene (PAA)/polybenzmidazole fiber (PBI) composite	Unchanged
653	T3III 9 1 CM2a	GY70/CE 339 [0/(90)2/0]4T, 250°F	Discolored
654	T3III 9 2 CM4b	GY70/CE 339, [(0)2/(90)2]T, 250°F	Discolored ( ), contaminated (stain)
655	T3III 9 3 CM6a	T50/F263 [0/(90)2/0]4T 350°F	Discolored ( )
656	T3III 9 4 CM8b	T50/F263 [(0)2/(90)2]T, 350°F	Discolored ( )
657	T3III 9 5 CM10a	T 50(PAN)/934[0/(90)2/0]4T, 350°F	Discolored
658	T3III 9 6 CM14b	T 50(PAN)/X904B-10[0/(90)2/0]4T 350°F	Discolored
659	T3III 9 7 CM18b	T-50(PAN)/E788[0/(90)2/0]4T, 350°F	Discolored ( )
660	T3III 9 8 CM42a	KEVLAR/epoxy K49 fabric/X904B [(0)2/(90)2]T, 350°F	Discolored
661	T3III 9 9 CM44b	T50/F263 [0/(90)2/0]4T, 250°F	Discolored
662	T3III 9-10 CM30a	Celion 6000/E788[0/(90)2/0]4T, 350°F	Discolored
663	T3III 9 11 CM3c	GY70/CE-339[±45/-45/±45]4T, 250°F	Discolored
664	T3III 9 12 CM7c	T50/F263 [±45/(-45)2/±45]4T, 350°F	Discolored
665	T3III 9 13 CM11c	T-50(PAN)/934[±45/(-45)2/±45]4T, 350°F	Discolored ( )
666	T3III 9 14 CM15b	T-50(PAN)/X904B-10[±45/(-45)2/±45]4T, 350°F	Dsicolored (-)
667	T3III 9 15 CM19c	T 50(PAN)/E788[±45/(-45)2/±45]4T, 350°F	Discolored ( )
668	T3III 9 16 CM38b	KEVLAR/epoxy K49 fabric/X904B (±45)4S, 350°F	Discolored (+)
669	T3III 9 17 CM45b	T 50/F263 [±45/(-45)2/±45]4T, 300°F	Discolored (+)
670	T3III 9 18 CM31a	Celion 6000/E788[±45/(-45)2/±45]4T, 350°F	Discolored (-)
671	T3III 9 19 AB2 1	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	Discolored
672	T3III 9 20 AB2 5	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	Discolored (+)
673	T3III 9 21 AB2 7	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	Discolored (+)
674	T3III 9 22 AB2 9	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	Discolored (+)
675	T3III 9-23-CM12b	T-50(PAN)/934[(0)2/(90)2]T, 350°F	Discolored, contaminated (stain), distorted
676	T3III 9-24 CM16b	T 50(PAN)/X904B-10[(0)2/(90)2]T, 350°F	Discolored, distorted
677	T3III 9 25 CM20a	T-50(PAN)/E788[(0)2/(90)2]T, 350°F	Discolored, distorted
678	T3III 9 26-CM28b	HMS/3501 5A[(0)2/(90)2]T, 290°F	Discolored, stained, distorted
679	T3III 9 27 CM46a	T50/F263 [(0)2/(90)2]T, 300°F	Discolored (-), distorted

DBs	Sample ID	Description	Post-Flight Condition
680	T3III 9 28 CM32b	Celion 6000/E788[(0)2/(90)2]T 350°F	Discolored, distorted
681	T3III 9 29 AM1B	Gold plated woven Dacron mesh	Unchanged, discolored (holder)
682	T3III 9 30 AM2c	Gold plated knitted Dacron mesh	Unchanged, discolored (holder)
683	T3III 9 31 AM3c	Plastic metal mesh laminate	Unchanged, discolored (holder)
684	T3III 9 32 AM4c	Solid plastic metal laminate	Buckled (-), discolored (holder)
685	T3III 9 33 AM1c	Gold plated woven Dacron mesh	Unchanged, discolored (holder)
686	T3III 9 34 AM2b	Gold plated knitted Dacron mesh	Buckled, discolored (holder)
687	T3III 9 35 AM3d	Plastic metal mesh laminate	Buckled (-), discolored (holder)
688	T3III 9 36 AM4a	Solid plastic metal laminate	Buckled, contaminated (particle) discolored (holde
689	T3III 3 37 III	Graphite polyimide	Unchanged
690	T3III 3 38 III	Graphite polyimide	Unchanged
691	T3III 3 39 IV	Special carbon/tungsten bearing resin	Contaminated (stain)
692	T3III 3 40 IV	Special carbon/tungsten bearing resin	Contaminated (stain)
693	T3III 3 41 IIIa	Aluminum 2024 Al/Cu alloy	Contaminated (particle)
694	T3III 3 42 IIIa	Aluminum 2024 Al/Cu alloy	Contaminate (particle)
695	T3III 19 43 C 00	Anodized aluminum mounting plate with MOS devices	Contaminated (particle)
695 01	T3III 19 43 C 01	MOS devices	Crazed
695 02	T3III 19 43 C 02	MOS devices	Contaminated (particle)
695 03	T3III 19 43 C 03	MOS devices	Crazed, contaminated (stain)
695 04	T3III 19 43 C 04	MOS devices	Contaminated (particle, stain)
695 05	T3III 19 43 C 05	MOS devices	Contaminated (particle)
695 06	T3III 19 43 C 06	MOS device	Contaminated (particle)
695 07	T3III 19 43 C 07	MOS devices	Contaminated (particle, stain)
695 08	T3III 19 43 C 08	MOS devices	Contaminated (particle, stain)
695 09	T3III 19 43 C 09	MOS Devices	Contaminated (particle, stain)
696	T3III 19 44 D 00	Anodized aluminum mounting plate with GaAs FETs, bulk GaAs	Discolored, contaminated (particle)
696 01	T3III 19 44 D 09	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696 02	T3III 19 44 D 10	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696 03	T3III 19 44 D 11	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696 04	T3III 19 44 D 12	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696 05	T3III 19 44 D 13	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696 06	T3III 19 44 D 14	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696 07	T3III 19 44 D 15	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696 08	T3III 19 44 D 16	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696 09	T3III 19 44 D 3639C	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696 1	T3III 19 44 D 3639D	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
697	T3III 3 45 V	Aluminum 6061 T6	Contaminated (stain, particle)
698	T3III 3 46 V	Aluminum 6061 T6	Contaminated (stain, particle)
699	T3III 3 47 VII	Pyrolitic carbon, Pyro Carb 43[illegible]	Unchanged
700	T3III 3 48 VII	Pyrolitic ca[illegible] Pyro Carb 43[illegible]	Unchanged

DB#	Sample ID	Description	Post-Flight Condition
701	T3III-3-49-I	Tape-wrapped carbon phenolic	Contaminated (stain)
702	T3III-3-50-I	Tape-wrapped carbon phenolic	Contaminated (stain)
703	T3III-3-51-IV	Graphite polysulfone	Contaminated (stain)
704	T3III-3-52 IV	Graphite polysulfone	Contaminated (stain)
705	T3III-3-53-II	Three-dimensional quartz phenolic	Discolored, contaminated (stain)
706	T3III 3 54-II	Three-dimensional quartz phenolic	Discolored, contaminated (stain)
707	T3III-8 55 31	Graphite/polyimide (HTS 2 unidirectional tape/PMR 15 [0°])	Distorted
708	T3III 8 56 11	Graphite/epoxy (T-300 unidirectional tape/Fiberite EA934 eposy resin [0°])	Discolored
709	T3III 8 57-S15	Silicon nitride 2-layer sandwich (foam layer 0 45" thick, skin layer 0 03" thick)	Contaminated (stain, particle)
710	T3III 8-58-S3	Silicon nitride, 2-layer sandwich (foam layer 0 45" thick, skin layer 0 03" thick)	Contaminated (particle)
711	T3III 11 59 S03	Aluminized fused silica mirror	Contaminated (particle)
712	T3III-11 60 04	ZnSe infrared plate	Contaminated (particle), holder distorted
713	T3III 12 61 3	Thermoluminescent dosimeter, LiF	Cratered
714	T3III 11 62 3	Corning 7940 second surface aluminum mirror	Hazed, contaminated (particle)
715	T3III 9 63-CM3d	GY70/CE-339[+45/(-45)2/+45]4T 250°F	Unchanged
716	T3III 9-64 CM7d	T50/F263[+45/(-45)2/+45]4T, 350°F	Discolored (-)
717	T3III 9 65 CM11a	T-50(PAN)/934[+45/(-45)2/+45]4T, 350°F	Contaminated (stain)
718	T3III 9 66-CM15c	T 50(PAN)/X904B-10[+45/(-45)2/+45]4T	Contaminated (stain)
719	T3III-9 67 CM19d	T-50(PAN)/E788[+45/(-45)2/+45]4T, 350°F	Unchanged
720	T3III 9 68-CM38a	KEVLAR/epoxy K49 fabric/X904B (±45)4S, 350°F	Unchanged
721	T3III 9 69-CM45a	T-50/F263 [+45/(-45)2/+45]4T, 300°F	Contaminated (stain)
722	T3III-9 70-CM31b	Celion 6000/E788[+45/(-45)2/+45]4T, 350°F	Unchanged
723	T3III 9 71 AB2 11	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	Contaminated (stain)
724	T3III 9 72-AB2-12	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	Contaminated (stain)
725	T3III 9 73 AB2-13	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	Discolored (-)
726	T3III-9-74 AB2-14	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	Contaminated (stain)
727	T3IV 4-1-2	Standard 350 nm coating/7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
728	T3IV 4 2 6	Reflective 350 nm coating/7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
729	T3IV 4 3 10	Reflective 350 nm coating/CERIA, Delrin retainer, OCLI	Contaminated (particle)
730	T3IV 4 4 14	Reflective 350 nm coating/7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
731	T3IV 4 5 18	HEA 3 1 coating/7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
732	T3IV 4 6 22	Mark III D coating/7940 fused silica, Delrin retainer, OCLI	Microfractured, contaminated (particle)
733	T3IV 4 7 26	Mark III E coating/7940 fused silica, Delrin retainer, OCLI	Delaminated, contaminated (particle)
734	T3IV-4 8 30	Contamination coating/7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
735	T3IV-4 9-34	Erosion coating/7940 fused silica, Delrin retainer, OCLI	Microfractured, contaminated (particle)
736	T3IV 4-10-38	Erosion coating/7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
737	T3IV-4 11-42	Mark IV coating/7940 fused silica, Delrin retainer, OCLI	Microfractured, contaminated (particle)
738	T3IV 4 12 46	Contamination coating/7940 fused silica, Delrin retainer, OCLI	Microfractured, contaminated (particle)
739	T3IV-4 13 50	7070 fused silica, Delrin retainer, OCLI	Contaminated (particle)
740	T3IV 4 14 54	7940 fused silica, Delrin retainer, OCLI	Microfractured

DB#	Sample ID	Description	Post-Flight Condition
741	T3IV 4 15 58	7940 fused silica. Delrin retainer. OCLI	Contaminated (particle)
742	T3IV 4 16 62	Ceria. Delrin retainer. OCLI	Microfractured. contaminated (particle)
743	T3IV 18 17	White thermal control paint. S13GLO/6061 Al. IITRI	Discolored (+). crazed
744	T3IV 18 18	White thermal control paint. S13GLO/6061 Al. IITRI	Discolored (+). crazed
745	T3IV 4 19 C	HESP II silicon cells. 5 cell string	Microfractured
746	T3IV 4 20 GA2	HESP II GaAs cells. 5 cell string	Discolored
747	T3IV 4 21 VJ2	Vertical junction silicon cells. 5 cell string	Microfractured. discolored
748	T3IV 4 22 B	High performance silicon cells. 5 cell string	Microfractured. discolored
749	T3IV 4 23 X4	Conventional silicon cells. 5 cell string	Debonded. discolored
750	T3IV 9 24 CM1a	GY70/CE 339 [(0)16]T 250 F	Discolored
751	T3IV 9 25 CM5b	T50/F263 [(0)16]T 350 F	Bleached
752	T3IV 9 26 CM9b	T 50/PAN/934 [(0)16]T. 350 F	Discolored
753	T3IV 9 27 CM13a	T 50/PAN/X904B-10 [(0)16]T. 350 F	Discolored
754	T3IV 9 28 CM17b	T 50/PAN/E788 [(0)16]T. 350 F	Discolored
755	T3IV 9 29 CM34a	HMF 176/34 (±45)4S 350 F	Discolored
756	T3IV 9 30 CM43b	T 50/F263 [(0)16]T. 300 F	Discolored. contaminated (particle)
757	T3IV 9 31 CM29b	Ceton 6000/E788 [(0)4]T 350 F	Discolored
758	T3IV 9 32 CM22b	HMF 176/34 fabric [(0)16]T. 350 F	Discolored
759	T3IV 9 33 CM41q	HMF 176/34 fabric [(0)2/(90)2]T. 350 F	Discolored
760	T3IV 9 34 CM37b	KEVLAR/epoxy K49 fabric/X904B [(0)16]T. 350 F	Discolored
761	T3IV 9 35 CM39b	E glass fabric/CE 339 [(0)16]T. 250 F	Discolored. cratered
762	T3IV 9 36 TC9	Coated molybdenum foil/1 4μ SiO2	Discolored
763	T3IV 9 37 TC9	Coated molybdenum foil/1 4μ SiO2	Cratered
764	T3IV 9 38 TC10	Coated molybdenum foil/ P238 filler (Al2O3)	Contaminated (particle)
765	T3IV 9 39 TC10	Coated molybdenum foil/ P238 filler (Al2O3)	Discolored. hazed
766	T3IV 9 40 TC11	Coated molybdenum foil/ Si3N4	Distorted
767	T3IV 9 41 TC11	Coated molybdenum foil/ Si3N4	Distorted
768	T3IV 9 42 TC12	Polyurethane white paint. Chemglaze A276/II	Discolored
769	T3IV 9 43 TC12	Polyurethane white paint. Chemglaze A276/II	Discolored
770	T3IV 9 44 TC13	Polyurethane black paint. Chemglaze Z306	Bleached
771	T3IV 9 45 TC13	Polyurethane black paint. Chemglaze Z306	Bleached
772	T3IV 9 46 TC5	Teflon FEP polymer coating Sprayfon 7075	Discolored
773	T3IV 9 47 TC5	Teflon FEP polymer coating Sprayfon 7075	Discolored
774	T3IV 9 48 TC2	Silicone paint black vacuum distilled RTV 602	Crazed
775	T3IV 9 49 TC2	Silicone paint black vacuum distilled RTV 602	Crazed. cratered
776	T3IV 9 50 TC3	White silicone high temperature paint Sperex AP-101	Discolored. wrinkled
777	T3IV 9 51 TC3	White silicone high temperature paint Sperex AP-101	Discolored. wrinkled
778	T3IV 9 52 TC6	Ceramic coating white borated silica	Discolored. contaminated (particle. stain)
779	T3IV 9 53 TC6	Ceramic coating white borated silica	Discolored. contaminated (particle)
780	T3IV 9 54 TC7	Ceramic coating black borated silica coating	Bleached (-)

DBe	Sample ID	Description	Post-Flight Condition
781	T3IV 9-55-TC7	Ceramic coating black borated silica coating	Bleached (-)
782	T3IV-9 56 TC8	Ceramic coating black HS 4 on LI-900	Roughened, textured
783	T3IV-9-57 TC8	Ceramic coating black HS 4 on LI-900	Roughened, textured
784	T3IV 9 58 TC4	Black silicone high temperature paint Sperex SP 102	Bleached
785	T3IV-9-59 TC4	Black silicone high temperature paint Sperex SP-102	Bleached
786	T3IV 9 60 TC1	Teflon FEP polymer coating Spraylon 7075	Discolored, distorted
787	T3IV 9 61 TC1	Teflon FEP polymer coating Spraylon 7075	Discolored, distorted
788	T3IV 8 62 183 4	Thin film solar cell, CuInSe2/CdS	Missing
789	T3IV 8 63 8	Thin film solar cell, standard Si	Missing
790	T3IV 8 64 7	Composite to composite (T 300/934) adhesive joint/Hysol EA 9628 epoxy	Discolored (+)
791	T3IV 8 65 9	Composite to composite (T 300/934) adhesive joint/Hysol EA 9628 epoxy	Discolored (+)
792	T3IV 8 66 11	Composite to composite (T-300/934) adhesive joint/Hysol EA 9628 epoxy	Discolored
793	T3IV 8 67 25	Graphite/polysulfone (T-300/ P-1700 polysulfone resin [0°/-90°])	Discolored
794	T3IV 8 68 103	Graphite/epoxy (conditioned) (T-300 unidirectional tape/Fiberite EA 934 epoxy resin [0°])	Crazed
795	T3IV 15 69 Z2	Rhodium coated glassy carbon substrate	Hazed, flaked
796	T3IV 17 70 T	Thermoluminescent dosimeter LiF	Unchanged
796.5	T3 V	Various materials, composites and metals	Discolored, cratered
797	T3IV 4 71 3	Standard 350nm coating on 7940 fused silica Delrin retainer, OCLI	Contaminated (particle)
798	T3IV 4 72 7	Reflective 350nm coating on 7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
799	T3IV-4 73 11	Reflective 350nm coating on Cera Delrin retainer, OCLI	Hazed, contaminated (particle)
800	T3IV 4 74 15	Reflective 350nm coating on 7940 fused silica Delrin retainer, OCLI	Microfractured, contaminated (particle)
801	T3IV 4 75 19	HEA coating 3 ton 7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
802	T3IV 4 76 23	Mark III D coating on 7940 fused silica, Delrin retainer, OCLI	Microfractured, contaminated (particle)
803	T3IV 4 77 27	Mark III E coating on 7940 fused silica, Delrin retainer, OCLI	Microfractured, contaminated (particle)
804	T3IV 4 78 31	Contamination coating on 7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
805	T3IV 4 79 35	Erosion coating on 7940 fused silica, Delrin retainer, OCLI	Microfractured, delaminated, contaminated (partic
806	T3IV-4-80-39	Erosion coating on 7940 fused silica, Delrin retainer, OCLI	Microfractured, contaminated (particle)
807	T3IV 4 81 43	Mark IV coating on 7940 fused silica, Delrin retainer, OCLI	Microfractured, contaminated (particle)
808	T3IV 4 82 47	Contamination coating on 7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
809	T3IV 4 83 51	7070 fused silica, Delrin retainer, OCLI	Hazed, microfractured, contaminated (particle)
810	T3IV 4 84 55	7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
811	T3IV 4 85 59	7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
812	T3IV-4-86 63	Ceria, Delrin retainer, OCLI	Contaminated (particle)
813	T3IV 16 87 A	HA-43 polyarylacetylene (PAA)/T300 carbon fabric composite	Crazed
814	T3IV-16-88-B	Aerospace polyarylacetylene (PAA)/T300 carbon fabric composite	Unchanged
815	T3IV-16-89-C	HA-43 polyarylacetylene (PAA)/polyphenylquinoxyline (PPQ) blend/T300 carbon fabric composite	Unchanged
816	T3IV-16-90-D	HA-43 polyarylacetylene/ polyphenylquinoxyline blend/Low temp PAN composite	Unchanged
817	T6III 9-1 TC14-6	LMSC modified Cotronics 931 coating on Ta substrate	Contaminated (stain, particle)
818	T6III 9-2 TC15-25	JB-1 black coating on Ta substrate	Crazed, bleached, contaminated (stain)
819	T6III 9-3 TC16 7	Vestar coating on Al substrate	Discolored (+), crazed (+), flaked

DB#	Sample ID	Description	Post-Flight Condition
820	T6III-9-4 TC17-3	GE SHC 1010 coating on Al substrate	Discolored (+)
821	T6III 9-5 TC18 3	Tedlar (400BS36W11) bonded to Al with Isotack Y9469	Discolored (+), contaminated (particle)
822	T6III-9 6 TC19-3	Black oxide coating on 304 stainless steel substrate	Bleached, contaminated (stain)
823	T6III 10-7 GL2 2	Graphite/glass Celion 6000/borosilicate glass	Cracked, contaminated (particle)
824	T6III 10 8 AL8 8	Mirror GY70/201/2024 clad (0/+60°)s	Unchanged
824 5	T6III 10 9 MG7	VS0054/EZ33A/AZ31B [0/±60]s	Unchanged
825	T6III 9 9 CM47 3	Strip P75S/F593	Bleached (-)
826	T6III 9 9 CM47 6	Strip P75S/F593	Bleached (-)
827	T6III 9 10 CM48 1	Strip P75S/934	Contaminated (stain)
828	T6III 9 10 CM48 4	Strip. P75S/934	Contaminated (stain)
828 01	T6III 10 10 AL7 6	Strip GY70/201/2024 clad (0/±60)s	Unchanged
829	T6III 10 11 MG7 6	Strip P100/EZ33A/AZ31B (6 ply). epsil meas . SG20	Contaminated (stain)
830	T6III 10 12 AL7 4	Strip GY70/201/2024 clad. (0/±60°)s epsilon meas . SG19	Contaminated (stain, particle)
831 01	T6III 10-13 1	Wire P100/AZ61A (Ti + B)	Contaminated (stain)
831 02	T6III 10 13 2	Wire P100/AZ61A (Ti + B)	Contaminated (stain)
831 03	T6III 10 13 3	Wire P100/AZ61A (Ti + B)	Contaminated (stain)
831 04	T6III 10 13 4	Wire P100/AZ61Z (Ti + B)	Contaminated (stain)
832 01	T6III 10 13 5	Wire P55 (TiO_2)/6061 Al (Ti + B)	Contaminated (stain)
832 02	T6III 10 13 6	Wire. P55 (TiO_2)/6061 Al (Ti + B)	Contaminated (stain)
833 01	T6III 10 13 7	Wire. GY70 (8T)/201	Contaminated (stain)
833 02	T6III 10-13 8	Wire GY70 (8T)/201	Contaminated (stain)
834 01	T6III 10 13-9	Wire. P55/6061Al (Ti + B)	Contaminated (stain)
834 02	T6III 10-13 10	Wire P55/6061 (Ti + B)	Contaminated (stain)
835	T6III 10 13 11	Wire. T300/6061Al	Contaminated (stain)
836	T6III 10 14 12	Wire. T300/6061Al	Contaminated (stain)
837 01	T6III 10 14 13	Wire. P100/6061Al (Ti + B)	Contaminated (stain)
837 02	T6III 10 14 14	Wire. P100/6061Al (Ti + B)	Contaminated (stain)
837 03	T6III 10 14 15	Wire P100/6061Al (Ti + B)	Contaminated (stain)
837 04	T6III 10-14 16	Wire P100/6061Al (Ti + B)	Contaminated (stain)
838 01	T6III 10-14-17	Wire. P55 (10K) 6061Al	Contaminated (stain)
838 02	T6III-10-14 18	Wire. P55 (10K) 6061Al	Contaminated (stain)
838 03	T6III 10 14 19	Wire. P55 (10K) 6061Al	Contaminated (stain)
838 04	T6III 10 14 20	Wire. P55 (10K) 6061Al	Contaminated (stain)
839 01	T6III 10 14 21	Wire. P100/AZ31B (Ti + B)	Contaminated (stain)
839 02	T6III 10 14 22	Wire. P100/AZ31B (Ti + B)	Contaminated (stain)
840	T6III-10-15-AL3-12	Strip. GY70/201/2024 clad. (0) epsl. meas., SG18	Contaminated (stain)
841	T6III 10-16 AL14 11	Strip. P55/6061/6061Al. (0) epsl meas . SG17. CTS1	Contaminated (stain)
842	T6III-10 17-AL15-4	Strip. P55/6061/6061Al. (90) epsl. meas . SG16	Contaminated (stain)
843	T6III 10 18 AL4 3	Strip. GY70/201/2024 clad. (90)	Contaminated (stain)
844	T6III 10 19 AL4 4	Strip. GY70/201/2024 clad. (90)	Contaminated (stain)

DBs	Sample ID	Description	Post-Flight Condition
845	T6III 10 20 AL3 5	Strip. GY70/201/2024 clad. (0)	Contaminated (stain)
846	T6III 10 21 AL5 5	Strip. GY70/201/2024 clad. (0)	Contaminated (stain)
847	T6III 10 22 AL5 11	Strip. GY70/201/2024 clad. (0)	Contaminated (stain)
848	T6III 10 23 AL5 12	Strip GY70/201/2024 clad. (0)	Contaminated (stain)
849	T6III 10 24 EP1 4	Strip GY70/X-30 (0/45/90/135)4	Contaminated (stain)
850	T6III 10 25 MG9 T1	Strip P100/AZ91C/AZ61A (90)	Distorted, dulled, contaminated (stain)
851	T6III 10 26 PS5 3	Rivoted lap. W 722(Graphite/Glass fabric)/P1700/TiO2 coating	Discolored, cracked, contaminated (stain)
852	T6III 10 27 PS5 4	Rivoted lap. 722(Graphite/Glass weave)/P1700/TiO2 coating	Discolored (+), cracked, contaminated (stain)
853	T6III 10 28 SS1 9	Strip Invar LR35	Contaminated (stain)
854	T6III 10 29 EP22 5	Strip GY70/CE339 (0/45/90/135)S2	Contaminated (stain)
855	T6III 10 30 PS2 5	Strip W 722(Graphite/Glass fabric)/P1700	Contaminated (stain)
856	T6III 10 31 PS2 6	Strip W 722(Graphite/Glass fabric)/P1700	Contaminated (stain)
857	T6III 10 32 PS3 3	Strip. W 722(Graphite/Glass fabric)/P1700/TiO2 coating	Discolored (+), cracked, contaminated (stain), crate
858	T6III 10 33 PS3 4	Strip. W 722(Graphite/Glass fabric)/P1700/TiO2 coating	Discolored (+), cracked, contaminated (stain)
859	T6III 10 34 EP3 5	Strip T300 tape/934 (0)	Contaminated (stain)
860	T6III 9 35 MPS C 1	Strip. LAC 23 4688. elastomer	Crazed (+), distorted (+), buckled
861	T6III 10 36 EP3 6	Strip. T300 tape/934 (0)	Contaminated (stain)
862 01	T6III 10 37 23	Wire. P100/AZ31B (Ti + B)	Contaminated (stain)
863 02	T6III 10 37 24	Wire. P55 (10K) AZ91C	Contaminated (stain)
863 03	T6III 10 37 25	Wire. P55 (10K) AZ91C	Contaminated (stain)
863 04	T6III 10 37 26	Wire. P55 (10K) AZ91C	Contaminated (stain)
864 01	T6III 10 38 27	Wire. SiC/6061Al	Contaminated (stain)
864 02	T6III 10 38 28	Wire. SiC/6061Al	Distorted, contaminated (stain)
864 03	T6III 10 38 29	Wire. SiC/6061Al	Contaminated (stain)
864 04	T6III 10 38 30	Wire. SiC/6061Al	Contaminated (stain)
864 05	T6III 10 38 31	Wire. SiC/6061Al	Contaminated (stain)
864 06	T6III 10 38 32	Wire. SiC/6061Al	Contaminated (stain)
864 07	T6III 10 38 33	Wire. SiC/6061Al	Contaminated (stain)
864 08	T6III 10 38 34	Wire. SiC/6061Al	Contaminated (stain)
864 09	T6III 10 38 35	Wire. SiC/6061Al	Contaminated (stain)
864 1	T6III 10 38 36	Wire. SiC/6061Al	Contaminated (stain)
864 11	T6III 10 38 37	Wire. SiC/6061Al	Contaminated (stain)
864 12	T6III 10 38 38	Wire. SiC/6061Al	Contaminated (stain)
864 13	T6III 10 38 39	Wire. SiC/6061Al	Contaminated (stain)
864 14	T6III 10 38 40	Wire. SiC/6061Al	Contaminated (stain)
864 15	T6III 10 38 41	Wire. SiC/6061Al	Contaminated (stain)
864 16	T6III 10 38 42	Wire. SiC/6061Al	Contaminated (stain)
864 17	T6III 10 38 43	Wire. SiC/6061Al	Contaminated (stain)
864 18	T6III 10 38 44	Wire. SiC/6061Al	Contaminated (stain)
865	T6III 10 39 AL15 13	Strip. VSB32/6061 T6/6061 Al clad. (90). epsi meas. SG15	Contaminated (stain)

DBs	Sample ID	Description	Post-Flight Condition
866	T6III 10 40 SS1 2	Strip. Invar LR35. epsl meas. SG14	Contaminated (stain)
867	T6III 10 41 SS1 4	Strip. Invar LR35. epsl meas. SG13. CTS-2	Contaminated (stain)
868	T6III 10 42 AL12 7	Strip. VSB32/6061-T6/6061 Al clad (0)	Contaminated (stain)
869	T6III 10 43 AL12 8	Strip. VSB32/6061-T6/6061 Al clad (0)	Contaminated (stain)
870	T6III 10 44 AL12 9	Strip. VSB32/6061 T6/6061 Al clad (0)	Distorted, dulled, contaminated (stain)
871	T6III 10 45 MG9 T3	Strip P100/AZ91C/AZ61A (90)	Contaminated (stain)
872	T6III 10 46 AL3 6	Strip. GY70/201/2024 clad. (0)	Distorted, dulled, contaminated (stain)
873	T6III 10 47 MG5 13	Strip VS0054/EZ33A/AZ31B clad (0)	Discolored (+), crazed, contaminated (stain)
874	T6III 10 48 PS3 6	Strip W 722(Graphite/Glass fabric)/P1700/TiO2 coating	Discolored (+), crazed, contaminated (stain)
875	T6III 10 49 PS4 2	Strip. W-722(Graphite/Glass fabric)/P1700/ZnO coating	Discolored, crazed, contaminated (stain)
876	T6III 10 50 PS5 6	Rivoted lap W 722(Graphite/Glass fabric)-P1700/TiO2 coating	Discolored, crazed, contaminated (stain)
877	T6III 10 51 PS6 2	Rivoted lap W 722(Graphite/Glass fabric)/P1700/TiO2 coating	Discolored, crazed
878	T6III 10 52 PS4 5	Strip. W 722(Graphite/Glass fabric)/P1700/ZnO coating	Discolored (+), crazed, contaminated (stain)
879	T6III 10 53 PS4 6	Strip W-722(Graphite/Glass fabric)/P1700/ZnO coating	Unchanged
880	T6III 10 54 GL1 2	Strip graphite/glass Celion 6000/borosilicate glass	Contaminated (stain)
881	T6III 10 55 EP12 3	Strip P75S/934. (0/45/90/135)S2	Contaminated (stain)
882	T6III 10 56 EP12 4	Strip. P75S/934. (0/45/90/135)S2	Discolored
883	T6III 10 57 EP4 6	Strip. AS/3501 6 (0)	Discolored
884	T6III 10 58 EP4 7	Strip. AS/3501 6 (0)	Crazed, discolored, contaminated (stain), cratered
885	T6III 9 59 S0 J	Strip. Soldal J coating (A. DC93-500/ B. R-2500)	Discolored, contaminated (stain)
887	T6III 9 61 S0 C	Strip. Soldal C coating. (A. Electrodag 502/ B. Electrodag 501)	Discolored
889	T6III 10 63 EP3 2	Strip T300 tape/934. epsl meas. SG12. CTS 13	Contaminated (stain)
890	T6III 10 64 EP4 3	Strip. AS/3501 6. epsl meas. SG11	Contaminated (stain)
891	T6III 10 65 PI5 3	Strip. T300/V378A (0/45/90/135)S2. epsl meas. SG10	Discolored
892	T6III 10 66 PS1 2	Strip. T300/P1700 (0/90). epsl meas. SG9	Contaminated (stain)
893	T6III 10 67 PI2 2	Strip. graphite/LARC 160. epsl. meas. SG8	Contaminated (stain)
894	T6III 10 68 EP1 3	Strip. GY70/X-30 (0/45/90/135)S2. epsl meas. SG7	Distorted, dulled
895	T6III 10 69 MG9 L6	Strip. P100/AZ91C/AZ61A (0)	Distorted, contaminated (stain)
896	T6III 10 70 MG4 3	Strip. VS0054/EZ33A/AZ31B. (90)	Contaminated (stain)
897	T6III 10 71 MG4 14	Strip. VS0054/EZ33A/AZ31B. (90)	Contaminated (stain)
898	T6III 10 72 PI1 6	Strip. Celion 6000/PMR-15. epsl meas. SG3	Discolored
899	T6III 10 73 PS11 2	Strip. T300/polyether sulfone. epsl meas. SG2	Contaminated (stain)
900	T6III 10 74 MG5 22	Strip. VS0054/EZ33A/AZ31B clad. (0). epsl meas. SG1	Distorted, contaminated (stain)
901	T6III 10 75 MG9 L7	Strip. P100/AZ91C/AZ61A (0°)	Contaminated (stain)
902	T6III 10 76 EP13 4	Strip. GY70/934 (0/45/90/135)S2	Discolored (+)
903	T6III 10 77 EP15 2	Strip. T300 fiber/5208/ZnO coating	Contaminated (stain)
904	T6III 10 78 EP14 1	Strip. T300 fiber/5208/W-Al flake coating	Contaminated (stain)
905	T6III 10 79 AL6 3	Strip. GY70/201/2024. clad (90)	Discolored
906	T6III 10 80 EP10 2	Strip. E-glass 120 fabric/X904B. (0)	Discolored (+)
907	T6III 10 81 PS6 5	Rivoted lap. W-722 Graphite/Glass fabric/P1700/ZnO coating	

DB#	Sample ID	Description	Post-Flight Condition
908	T6III 10 82 PS6-6	Rivoted lap. W-722 Graphite/Glass fabric/P1700/ZnO coating	Discolored (+), contaminated (stain)
909	T6III-10 83 EP5-2	Strip. GY70/X904B. (0)	Bleached
910	T6III 10 84 EP6 2	Strip. GY70/X904B. (0/90/90/0)	Contaminated (stain)
911	T6III-9 85 MPS C 2	Strip LAC 23 4688. elastomer	Crazed (+), distorted (+), outgassed (+)
912	T6III 10 86 EP7 2	Strip GY70/X904B [+45/(-45)2/+45]4T	Contaminated (stain), cratered
913	T6III 10 87 EP22 2	Strip GY70/CE 339 (0/45/90/135)S2	Contaminated (stain)
914	T6III 10 88 AL14 16	Strip VSB32/6061 T6/6061 Al clad (0)	Unchanged
915	T6III 10 89 PI1 5	Strip Celion 6000/PMR 15 (0)	Contaminated (stain)
916	T6III 10 90 PI2 4	Strip T300/V378A-160	Contaminated (stain)
917	T6III 10 91 PS1 4	Strip T300 fabric/P1700 (0,90)	Contaminated (stain), crazed
918	T6III 10 92 MG6 3	Strip VS0054/EZ33A/AZ31B clad (90)	Distorted, contaminated (stain)
919	T6III 10 93 AL31 3	Strip SiC whiskers/6061Al	Contaminated (stain, particle)
920	T6III 10 94 AL30 1	Strip SiC whiskers/2124 Al	Contaminated (stain, particle)
921	T6III 10 95 AL6 7	Strip GY70/201/2024 clad. (90)	Distorted, contaminated (stain)
922	T6III 10 96 AL14 4	Strip VSB32/6061-T6/6061 Al clad (0)	Contaminated (stain)
923	T6III 10 97 AL32 6	Strip SiC fiber, SC S2/Al	Contaminated (stain)
924	T6III 10 98 PS13 1	Strip T300/polyether sulfone/ZnO coating	Discolored (+), contaminated (particle)
925	T6III 10 99 PS13 2	Strip. T300/polyether sulfone/ZnO coating	Discolored (+), contaminated (particle)
926	T6III 10 100 MG3 18	Strip VS0045/EZ33A/AZ31B. clad (0) epsilon meas. SG6. CTS 4	Contaminated (stain)
927	T6III 10 101 PS2 2	Strip W-722 (Graphite/Glass fabric)/P1700 epsilon meas. SG5	Discolored, contaminated (stain), crazed
928	T6III 10 102 EP22 8	Strip GY70/CE339 (0/45/90/135)S2 epsilon meas. SG4	Bleached
929	T6III 10 103 MG5 3	Strip VS0054/EZ33A/AZ31B clad. (0)	Distorted, contaminated (stain)
930	T6III-10 104 EP13 3	Strip GY70/934 (0/45/90/135)S2	Contaminated (stain)
931	T6III 9 105 MPS C 4	Strip LAC23-4688. elastomer	Crazed (+), distorted (+), outgassed (+)
932	T6III 10 106 AL32 7	Strip. SiC fiber, SC S2/Al	Contaminated (stain)
933	T6III 10 107 PS14 1	Strip. T300/polyether sulfone/TiO2 coating	Contaminated (stain)
934	T6III 10 108 PS12 1	Strip. T300/polyether sulfone/with leafing Al coating	Discolored (+)
935	T6III 10 109 EP2 5	Strip. GY70/X-30[0/45/90/135]S2. Sn-In Eutectic coating	Contaminated (stain)
936	T6III 10 110 AL33 1	Strip. P100/201/2024 Al (+20°/-20°)S	Contaminated (stain)
937	T6III 10 111 AL33 8	Strip. P100/201/2024 Al (+20°/-20°)S	Contaminated (stain)
938	T6III 10 112 MG10 4	Strip. P100/AZ91C/AZ61A (+10°/-10°)S	Dulled, discolored
939	T6III 10 113 MG10 6	Strip. P100/AZ91C/AZ61A (+10°/-10°)S	Dulled, cratered
940	T6III 10 114 EP21 3	Strip. P75S/CE-339. (0/45/90/135)S4	Contaminated (stain)
941	T6III-10 115 EP21 4	Strip. P75S/CE-339. (0/45/90/135)S4	Discolored
942	T6III 9 116 WI	Coated wire. MIL-W-22759/32	Discolored (+), cracked
943	T6III 10 117 PI5 5	Strip. T300/V378A. (0/45/90/135)S2	Contaminated (stain)
944	T6III 10 118 PI5 6	Strip. T300/V378A. (0/45/90/135)S2	Contaminated (stain)
945	T6III 10 119 PS1 10	Strip. T300 fabric/P1700. (0,90)	Discolored
946	T6III 9 120 S0 O	Strip. Soldal O coating: (A. DC93-500/ B. R-2501)	Crazed, discolored, contaminated (stain)
948	T6III 10 122 PI4	Strip. Celion 6000/polyimide	Contaminated (stain)

DB#	Sample ID	Description	Post-Flight Condition
949	T6III 9-123 TC14 9	LMSC modified Cotronics 931 coating on Ta substrate	Unchanged
950	T6III-9 124 TC15-29	JB-1 black coating on Ta substrate	Crazed
951	T6III-9-125-TC16 8	Vestar coating on Al substrate	Crazed, flaked
952	T6III 9-126 TC17 5	GE-SHC 1010 coating on Al substrate	Unchanged
953	T6III 9 127 TC18 4	Tedlar (400BS30W11) bonded to Al with Isolack Y9469	Contaminated (particle)
954	T6III 9 128 TC19 4	Black oxide coating on 304 stainless steel substrate	Unchanged
955	T6III 10 129 AL6 3	Mirror GY70/201/2024 clad.(0/±60)s	Unchanged
956	T6III 10 130 AL8 5	Mirror GY70/201/2024 clad. (0/±60°)s	Unchanged
957	T6III 9 131 CM47 1	Strip P75S/F593 102 270	Contaminated (stain)
958	T6III 9 131 CM47 4	Strip P75S/F593 102-270	Contaminated (stain)
959	T6III 10 131 AL7 3	Strip. GY70/201/2024 clad (0/±60)s	Contaminated (stain)
960	T6III 9 132 CM48 2	Strip. P75S/934. 102 15A	Contaminated (stain)
961	T6III-9 132-CM48 5	Strip. P75S/934. 102 15A	Contaminated (stain)
962	T6III 10 132 AL7 7	Strip. GY70/201/2024 clad. (0/±60°)s	Contaminated (stain)
963	T6III 10 133 AL7 14	Strip GY70/201 clad (0/±60)s	Unchanged
964	T6III 10 133 AL7 15	Strip GY70/201 clad (0/±60)s	Contaminated (stain)
965	T6III 10 134 AL7 12	Strip GY70/201 clad (0/±60°)s	Unchanged
966	T6III 10 134 AL7 13	Strip GY70/201 clad (0/±60)s	Unchanged
967	T6III 10 135 1	Wire. P100/AZ61A (Ti + B)	Contaminated (stain)
968	T6III 10 135 2	Wire P55 (TiO2)/6061 Al (Ti + B)	Unchanged
969	T6III 10-135 3	Wire GY70 (8T)/201	Unchanged
970	T6III 10 135 4	Wire. P55/6061 Al (Ti + B)	Unchanged
971	T6III 10 135 5	Wire T300/6061Al	Unchanged
972	T6III 10 135 6	Wire P100/6061 Al (Ti + B)	Unchanged
973	T6III 10 135 7	Wire. P55 (10K)/6061Al	Unchanged
974	T6III-10-135-8	Wire. P100/AZ31B (Ti + B)	Contaminated (stain)
975	T6III-10-135-9	Wire. P55 (10K)/AZ91C	Contaminated (particle)
976	T6III 10 135-10	Wire. SiC/6061Al	Unchanged
977 01	T6III 10 136-11	Wire. SiC/6061Al	Unchanged
977 02	T6III-10 136 12	Wire. SiC/6061Al	Unchanged
977 03	T6III-10 136-13	Wire SiC/6061Al	Unchanged
977 04	T6III 10 136-14	Wire. SiC/6061Al	Contaminated (stain)
978	T6III 10-137 AL3-10	Strip. GY70/201/2024 clad. (0)	Distorted
979	T6III-10 138-AL3-11	Strip. GY70/201/2024 clad. (0)	Unchanged
980	T6III-10-139-AL3-13	Strip. GY70/201/2024 clad. (0)	Unchanged
981	T6III-10-140-AL4-7	Strip. GY70/201/2024 clad. (90)	Unchanged
982	T6III-10-141-AL4-8	Strip. GY70/201/2024 clad. (90)	Unchanged
983	T6III-9-142-MPS-C-5	Strip. LAC 23-4686. elastomer	Distorted, contaminated (particle)
984	T6III-10-143-AL5 6	Strip. GY70/201/2024 clad. (0)	Unchanged
985	T6III 10 144 AL5 13	Strip. GY70/201/2024 clad. (0)	Unchanged

DB#	Sample ID	Description	Post-Flight Condition
986	T6III 10 145-AL5-14	Strip. GY70/201/2024 clad. (0)	Unchanged
987	T6III-10-146 EP1-7	Strip. GY70/X-30 (0/45/90/135)4	Unchanged
988	T6III 10-147 EP1-8	Strip. GY70/X-30 (0/45/90/135)4	Contaminated (stain)
989	T6III 10 148-PS5-8	Riveted lap. W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	Discolored (-), cracked
990	T6III 9 149-MPS-C 6	Strip. LAC 23-4688. elastomer	Distorted, contaminated (particle)
991	T6III 10 150 SS1 10	Strip. Invar LR35	Distorted
992	T6III 10 151 PS2 10	Strip. W 722 (Graphite/Glass fabric)/P1700	Contaminated (stain)
993	T6III 10 152 PS2 11	Strip W 722 (Graphite/Glass fabric)/P1700	Discolored, contaminated (stain)
994	T6III 10 153 PS2 12	Strip W 722 (Graphite/Glass fabric)/P1700	Discolored
995	T6III 10 154 PS3 10	Strip. W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	Contaminated (stain), cracked
996	T6III 10 155 PS3 11	Strip W 722 (Graphite/Glass fabric)/P1700/TiO2 coating	Discolored, cracked
997	T6III 10 156 EP3 10	Strip. T300 tape/934 (0)	Unchanged
998	T6III 10 157-EP3-11	Strip. T300 tape/934 (0)	Contaminated (stain)
999	T6III 10 158 EP3 12	Strip. T300 tape/934 (0)	Contaminated (stain)
1002	T6III 10 161 AL6 4	Strip GY70/201/2024 clad. (90)	Unchanged
1003	T6III 10 162 AL6 8	Strip GY70/201/2024 clad. (90)	Unchanged
1004	T6III 9 163-MPS C 8	Strip. LAC 23-4688. elastomer	Unchanged
1005	T6III 10 164-AL12-1	Strip. VSB32/6061-T6/6061 Al (0)	Unchanged
1006	T6III 10 165-AL12-1	Strip. VSB32/6061-T6/6061 Al (0)	Unchanged
1007	T6III 10-166-AL12-1	Strip. VSB32/6061-T6/6061 Al (0)	Unchanged
1008	T6III 10-167-GL3-3	Strip. graphite/glass Celion 6000/borosilicate glass	Unchanged
1009	T6III 9 168-S0 D	Strip. Soldal D coating (A. Electrodag 502/ B. Electrodag 501)	Unchanged
1011	T6III 10 170-PS3-12	Strip. W 722 (Graphite/Glass fabric)/P1700/TiO2 coating	Discolored, cracked
1012	T6III 10 171 PS4 10	Strip. W-722 (Graphite/Glass fabric)/P1700/ZnO coating	Contaminated (stain), cracked
1013	T6III 10 172 MGS-14	Strip. VS0054/EZ33A/AZ31B clad (0)	Distorted, dulled
1014	T6III 10-173 PS6-8	Riveted lap W-722 (Graphite/Glass fabric)/P1700, ZnO coating	Contaminated (stain), cracked
1015	T6III 10 174 PS4 11	Strip. W-722 (Graphite/Glass fabric)/P1700/ZnO coating	Contaminated (stain)
1016	T6III 10 175-PS4 12	Strip. W-722 (Graphite/Glass fabric)/P1700/ZnO coating	Contaminated (stain)
1017	T6III 10 176 PS1 8	Strip. T300/P1700 (0/90)	Unchanged
1018	T6III 10 177-EP12-7	Strip. P75S/934. (0/45/90/135)S2	Unchanged
1019	T6III 10 178-EP12-8	Strip. P75S/934. (0/45/90/135)S2	Contaminated (stain)
1020	T6III 10 179 EP4 11	Strip. AS/3501-6 (0)	Unchanged
1021	T6III 10-180-EP4-12	Strip. AS/3501-6 (0)	Unchanged
1022	T6III 10-181-EP4-13	Strip. AS/3501-6 (0)	Contaminated (stain)
1023	T6III 10 182-PI1-10	Strip. Celion 6000/PMR-15 (0)	Contaminated (stain)
1024	T6III 10-183-AL14-1	Strip. VSB32/6061-T6/6061 Al clad. (0)	Unchanged
1025	T6III 10 184-AL14-3	Strip. VSB32/6061-T6/6061 Al clad. (0)	Unchanged
1026	T6III 10-185-AL14-1	Strip. VSB32/6061-T6/6061 Al clad. (0)	Unchanged
1027	T6III 10-186-AL15-5	Strip. VSB32/6061-T6/6061 Al clad. (90)	Unchanged
1028	T6III 10-187-AL15-1	Strip VSB32/6061-T6/6061 Al clad. (90)	Unchanged

DBs	Sample ID	Description	Post-Flight Condition
1029	T6III-10-188-EP22-4	Strip. GY70/CE-339 (0/45/90/135)S2	Contaminated (particle)
1030	T6III-10-189-MG3	Strip. VS0054/EZ33A/AZ31B. (0)	Contaminated (stain)
1031	T6III-10-190-MG3	Strip. VS0054/EZ33A/AZ31B. (0)	Unchanged
1032	T6III-10-191-MG3	Strip. VS0054/EZ33A/AZ31B. (0)	Unchanged
1033	T6III-10-192-MG9-L4	Strip. P100/AZ91C/AZ61A (0)	Dulled
1034	T6III-10-193-MG9-L8	Strip. P100/AZ91C/AZ61A (0)	Dulled
1035	T6III-10-194-EP13-7	Strip GY70/934 (0/45/90/135)S2	Contaminated (stain)
1036	T6III-10-195-MG5-4	Strip. VS0054/EZ33A/AZ31B clad (0)	Dulled
1037	T6III-10-196-MG5-21	Strip VS0054/EZ33A/AZ31B clad (0)	Contaminated (stain)
1038	T6III-10-197-MG5-10	Strip. VS0054/EZ33A/AZ31B clad (0)	Unchanged
1039	T6III-10-198-EP13-8	Strip GY70/934 (0/45/90/135)S2	Contaminated (stain)
1040	T6III-10-199-EP18-1	Strip. T300/2 mil-3M 113 viscoelatic tape/5208	Contaminated (stain)
1041	T6III-10-200-EP19-1	Strip. T300/2 mil-3M 113 viscoelatic tape/5208	Contaminated (stain)
1042	T6III-10-201-EP20-1	Strip. T300/2 mil-3M 113 viscoelatic tape/5208	Contaminated (stain)
1043	T6III-10-202-EP10-4	Strip E glass 120 Fabric/X904B (0)	Unchanged
1044	T6III-10-203-EP5-4	Strip. GY70/X904B (0)	Unchanged
1045	T6III-10-204-EP6-4	Strip. GY70/X904B (0/90/90/0)	Unchanged
1046	T6III-10-205-EP7-4	Strip. GY70/X904B. (0)	Unchanged
1047	T6III-10-206-PI1-11	Strip. Celion 6000/PMR-15 (0)	Unchanged
1048	T6III-10-207-PI1-12	Strip. Celion 6000/PMR-15 (0)	Unchanged
1049	T6III-10-208-PS1-7	Strip. T300/P1700 (0/90)	Unchanged
1050	T6III-10-209-AL30-3	Strip. SiC whiskers/2124 Al	Unchanged
1054	T6III-9-213-W2	Coated wire. MIL-W-22759/32	Contaminated (stain), contaminated (particle)
1055	T6III-10-214-MG6-4	Strip. VS0054/EZ33A/AZ31B clad. (90)	Unchanged
1056	T6III-10-215-MG9-T7	Strip. P100/AZ91C/AZ61A (90)	Dulled
1057	T6III-10-216-MG9-T5	Strip. P100/AZ91C/AZ61A (90)	Dulled
1058	T6III-9-217-S0-K	Strip. Soldal K coating. (A. DC93-500/ B. R-2501)	Contaminated (particle)
1060	T6III-10-219-AL31-4	Strip. SiC whiskers/6061Al	Contaminated (stain)
1061	T6III-9-220-S0-R	Strip. Soldal R coating. (A. DC93-500/ B. R-2501)	Contaminated (particle)
1063	T6III-10-222-EP2-6	Strip. GY70/X-30/Sn-In eut (0/45/90/135)4	Contaminated (stain)
1064	T6III-10-223-EP22-6	Strip. GY70/CE-339 (0/45/90/135)S2	Unchanged
1065	T6III-10-224-EP22-1(	Strip. GY70/CE-339 (0/45/90/135)S2	Unchanged
1066	T6III-10-225-MG10-3	Strip. P100/AZ91C/AZ61A (+10°/-10°)S	Dulled
1067	T6III-10-226-MG10-8	Strip. P100/AZ91C/AZ61A (+10°/-10°)S	Dulled
1068	T6III-10-227-AL33-5	Strip. P100/201/2024 Al (+20°/-20°)S	Unchanged
1069	T6III-10-228-AL33-7	Strip. P100/201/2024 Al (+20°/-20°)S	Unchanged
1070	T6III-10-229-PS14-2	Strip. T300/polyether sulfone/TiO2 coating	Contaminated (stain)
1071	T6III-10-230-PS12-2	Strip. T300/polyether sulfone/with leafing Al coating	Unchanged
1072	T6III-10-231-EP21-7	Strip. P75S/CE-339. (0/45/90/135)S4	Unchanged
1073	T6III-10-232-EP21-8	Strip. P75S/CE 339. (0/45/90/135)S4	Unchanged

OBs	Sample ID	Description	Post-Flight Condition
1074	T6III 10 233 PI5 10	Strip. Celion 6000/PMR-15. (0)	Unchanged
1075	T6III-10-234 PI5-11	Strip. T300/V378A (0/45/90/135)S2	Unchanged
1076	T6III-10-235-PI5-12	Strip. T300/V378A. (0/45/90/135)S2	Unchanged
1077	T6III 10 236 PS1 12	Strip. T300/P1700. (0/90)	Unchanged
1078	T6III 10 237 PI2 8	Strip. graphite/LARC 160	Unchanged
1079	T6III 10 238 PI2 9	Strip. graphite/LARC 160	Unchanged
1080	T6III 10 239 PI2 10	Strip. graphite/LARC 160	Unchanged
1081	T6III 10 240 AL32 3	Strip SiC fiber. SC S2/Al	Unchanged
1085	T6III 10 244 AL32 5	Strip. SiC fiber SC S2/Al	Unchanged
1086	T6VI-5-1 A20	White paint TiO2/RTV 602. ML101. Air Force Materials Laboratory	Discolored (-). contaminated (particle)
1087	T6VI 5 2 A18	White paint alpha Al2O3/RTV 602. ML101. Air Force Materials Laboratory	Discolored (-)
1088	T6VI 5 3 A16	White paint NS 43G NASA Goddard Space Flight Center	Discolored (-). crazed. contaminated (particle)
1089	T6VI 5 4 B5	Ag mirror/Al	Corroded (-)
1090	T6VI 5 5 A14	White paint. S13GLO. IITRI	Discolored (-). contaminated (particle)
1091	T6VI 5 6 A11	Kapton/Al. 5 mil Sheldahl	Unchanged
1092	T6VI 5 7 A7	Teflon FEP/Ag/Inconel. 2 mil. Sheldahl	Hazed
1093	T6VI 5 8 A1	Quartz fabric 581 (Astroquartz)/Teflon FEP/Al General Electric	Discolored (-)
1094	T6VI 5 9 A21	White paint. DC92-007 TiO2/RTV 3140. Rockwell Int	Discolored (-). contaminated (particle) (+). wrinkl
1095	T6VI 5 10 A19	White paint. PV100 TiO2/silicone resin. ML101 Air Force Materials Laboratory	Discolored (-). contaminated (particle)
1096	T6VI 5 11 A17	White paint. Eu2O3/RTV 602. ML101. Air Force Materials Laboratory	Discolored (-)
1097	T6VI 5 12 A15	White paint. YB-71. IITRI	Crystallized
1098	T6VI 5 13 A13	White paint. Z93. IITRI	Unchanged
1099	T6VI 5 14-A8	Teflon FEP/Ag/Inconel. 5 mil. Sheldahl	Roughened
1100	T6VI 5 15 A6	7μm quartz fabric chemical and heat cleaned (+450°C). adhesive bond. General Electric	Discolored
1101	T6VI 5 16 B4	Al mirror/glass	Microfractured
1102	T6VI 5 17 B2	Optical Solar Reflector. OCLI SI-100 with conductive coating	Corroded
1103	T6VI 5 18 B1	Optical Solar Reflector. OCLI SI-100	Corroded
1104	T6VI 5 19 B3	Au mirror/Al	Contaminated (stain)
1105	T6VI 13-20-A	Ag/Teflon FEP-covered aperture plate on cassette containing 25 optical samples	Cover hazed. discolored (-)
1105 01	T6VI-13-20-01A	Flexible reflector Denton silver/ Al	Unchanged
1105 02	T6VI 13 20 02A	Reflective MLI retainer Al2O3(0 3255μmm) / Ag(0 2μm) /Al2O3 (0 0245μm) / VESPEL	Unchanged
1105 03	T6VI 13-20-03A	Flat solar reflector Leafing Al paint (polysilicate binder)/ Al	Unchanged
1105 04	T6VI-13-20-04A	Flat solar reflector Barrier anodize/ Al	Hazed (-)
1105 05	T6VI-13-20-05A	Flexible reflector Al2O3(0 3255 μm)/ Ag(0.2μm)/Al2O3(0 0323 μm)/ 2 mil Kapton	Microfractured
1105 06	T6VI 13 20 06A	Flexible reflector Al2O3 (0 3255 μm)/Ag (0 2μ m)/ Al2O3 (0.0323 μm)/ Al foil	Unchanged
1105 07	T6VI-13 20-07A	Ceramic MLI retainer MACOR	Unchanged
1105 08	T6VI-13-20-08A	Radiator coating Boron nitride. grade HP	Unchanged
1105 09	T6VI 13-20-09A	Radiator coating BaF2/Ag/Al	Microfractured. chipped
1105 1	T6VI-13 20 10A	Flexible mirror Dielectric Stack. Al2O3/Ag/Kapton	Microfractured
1105 11	T6VI-13 20-11A	Solar absorber Black chrome on nickel foil	Unchanged

DBs	Sample ID	Description	Post-Flight Condition
1105 12	T6VI 13 20 12A	Wide band reflective stack	Cratered
1105 13	T6VI 13 20 13A	Thermal switch (non-linear) Non-Linear material/Ge	Unchanged
1105 14	T6VI 13 20 14A	Absorptive stack Dielectric stack/SiO2/Al2O3/Ni-Au/ Be	Unchanged
1105 15	T6VI 13 20 15A	Non linear material VO2/BaF2 , Honeywell	Hazed
1105 16	T6VI 13 20 16A	Sapphire second surface mirror	Contaminated (particle)
1105 17	T6VI 13 20 17A	Sapphire cover slip	Microfractured ( )
1105 18	T6VI 13 20 18A	Reflective/transmissive filter ZnS/SrF2/ITO/SiO2	Hazed
1105 19	T6VI 13 20 19A	Scanning horizon sensor Dielectric stack/ Ge	Contaminated (particle)
1105 2	T6VI 13 20 20A	Staring horizon sensor Dielecinc Stack/ZnSe/Dielectric stack	Contaminated (particle)
1105 21	T6VI 13 20 21A	Graphite polyimide/Fiberfrax paper/Astroquartz 550/Astroquartz 581	Unchanged
1105 22	T6VI 13 20 22A	Graphite polyimide/capacitive grid material/ceramic standoff/Astroquartz 581	Discolored (-)
1105 23	T6VI 13 20 23A	ECCOFOMMOG	Unchanged
1105 24	T6VI 13 20 24A	Flexible dielectric stack dielectric stack/Kapton	Contaminated (particle)
1105 25	T6VI 13 20 25A	Graphite polyimide/Astroquartz 550/BN fabric	Discolored
1106	T6VI 6 21 II	Ag/Teflon FEP covered cassette holding 11 sun pumped laser coatings	Hazed, discolored ( )
1106 01	T6VI 6 21 II 1	Laser rod anti reflection coating ZrO2/SiO2 on YAG	Unchanged
1106 02	T6VI 6 21 II 2	Laser mirror high reflectance coating TiO2/SiO2 on silica	Contaminated (particle)
1106 03	T6VI 6 21 II 3	Lens anti reflection coating Yttralox/MgF2 on Silica	Hazed
1106 04	T6VI 6 21 II 4	Telescope/gimbal high reflectance coating ZnS/ThF4/Ag on silica	Corroded, contaminated (particle)
1106 05	T6VI 6 21 II 5	Telescope/gimbal high reflectance coating SiO2/Al2O3/Ag on silica	Unchanged
1106 06	T6VI 6 21 II 6	Telescope/gimbal high reflectance coating SiO2/Ag on Cervit	Unchanged
1106 07	T6VI 6 21 II 7	Solar telescope high reflectance coating Electroplated Au on Ni/Al	Unchanged
1106 08	T6VI 6 21 II 8	Solar telescope high reflectance coating Au/Spinel on Ni/Al	Corroded (-)
1106 09	T6VI 6 21 II 9	Wide band reflector coating TiO2/SiO2 on silica	Flaked, contaminated (particle)
1106 1	T6VI 6 21 II 10	Wide [illegible] reflector coating ZrO2/SiO2 on silica	Hazed
1106 11	T6VI 6 21 II 11	Wide band anti-reflection coating Al2O3/ZrO2/MgF2	Microfractured
1107	T6VI 4 22 X2	Conventional silicon cells, 5 cell string	Microfractured, debonded
1108	T6VI 12 23 6	Thermoluminescent dosimeter, LiF	Buckled, contaminated (stain)
1109	T6VI 11 24 05	ZnSe infrared plate	Missing, holder eroded
1110	T6VI 11 25 5	Corning 7940 second surface aluminum mirror	Hazed
1111	T6VI 11 26 S04	Aluminized fused silica mirror	Contaminated (particle)
1112	T6VI 11 27 BG04	Low scatter black glass	Unchanged
1113	T6VI 11 28 C81 8	Gold coated copper mirror	Unchanged
1114	T6VI 11 29 N04	Low scatter nickel mirror	Contaminated (particle)
1115	T6VI 7 30 36	Mirror, Ag + (ThF4/ZnS)^3 coating on polished molybdenum substrate	Hazed, cratered
1116	T6VI 7 31 4	Mirror, Ag + (Al2O3/Si)^2 coating on polished molybdenum substrate	Hazed, contaminated (particle)
1117	T6VI 1 32 B11	WO3 (UV treated)+IR dye/Al substrate	Discolored
1118	T6VI 1 33 C11	WO3 (UV treated)/polyurethane/Al substrate	Discolored
1119	T6VI 1 34 A11	WO3 (UV treated)/polyurethane/Al substrate	Discolored
1120	T6VI 1 35 B22	WO3 (UV treated)+IR dye/Al substrate	Discolored

DB#	Sample ID	Description	Post-Flight Condition
1121	T6VI 1 36 C22	WO3 (UV treated)/polyurethane/Al substrate	Discolored
1122	T6VI 1 37 A22	WO3 (UV treated)/polyurethane/Al substrate	Discolored
1123	T6VI 2 38 005	Fused SiO2	Contaminated (particle)
1124	T6VI 2 39 021	Fused SiO2	Contaminated (particle)
1125	T6VI 2 40 029	Fused SiO2	Contaminated (particle)
1126	T6VI 2 41 009	MgF2 coating, lambda (1.06)/2 thick/fused silica substrate	Crazed, contaminated (particle)
1127	T6VI 2 42 013	MgF2 coating, lambda (1.06)/2 thick/fused silica substrate	Crazed, contaminated (particle)
1128	T6VI 2 43 023	MgF2 coating, lambda (1.06)/2 thick/fused silica substrate	Crazed, contaminated (particle)
1129	T6VI 2 44 N21	Polished molybdenum	Hazed
1130	T6VI 2 45 N17	Polished molybdenum	Hazed
1131	T6VI 2 46 N4	Polished molybdenum	Hazed
1132	T6VI 2 47 N1	ThF4/Ag/Cr coating lambda (1.06)/2 thick/ molybdenum substrate	Unchanged
1133	T6VI 2 48 N12	ThF4/Ag/Cr coating lambda (1.06)/2 thick/ molybdenum substrate	Unchanged
1134	T6VI 2 49 N2	ThF4/Ag/Cr coating lambda (1.06)/2 thick/ molybdenum substrate	Hazed (-)
1135	T6VI 2 50 8691	Diamond turned copper, A surface	Corroded
1136	T6VI 2 51 8689	Diamond turned copper, B surface	Hazed
1137	T6VI 2 52 8684	Diamond turned copper, C surface	Hazed
1138	T6VI 2 53 1	Diamond turned nickel coated copper, A surface	Hazed
1139	T6VI 2 54 7	Diamond turned nickel coated copper, A surface	Hazed (-)
1140	T6VI 2 55 9	Diamond turned nickel coated copper, B surface	Hazed
1141	T6VI 2 56 008	Fused SiO2	Unchanged
1142	T6VI 2 57 011	MgF2 coating, lambda (1.06)/2 thick/fused silica substrate	Crazed
1143	T6VI 2 58 N9	Polished molybdenum	Contaminated (particle)
1144	T6VI 2 59 N13	ThF4/Ag/Cr coating lambda (1.06)/2 thick/ molybdenum substrate	Contaminated (particle)
1145	T6VI 2 60 8685	Diamond turned copper	Unchanged
1146	T6VI 2 61 3	Diamond turned nickel coated copper	Contaminated (particle)
1147	T6VI 1 62 A63	WO3 (UV treated)/polyurethane/Al substrate	Unchanged
1148	T6VI 1 63 B63	WO3 (UV treated)+IR dye/Al substrate	Unchanged
1149	T6VI 1 64 C63	WO3 (UV treated)/polyurethane/Al substrate	Unchanged
2000	D4 SCU Cover	S13GLO painted Al box covering signal conditioning unit	Discolored, contaminated (stain), cratered
2001	D4 Sunshield	Chemglaze A276 painted Al sunshield covering Experiment Power and Data System	Discolored
2002	D8 SCU Cover	S13GLO painted Al box covering signal conditioning unit	Discolored, crazed, cratered
2003	D8 Sunshield	Chemglaze A276 painted Al sunshield covering Experiment Power and Data System	Eroded, cratered
2004	L3I 20 1	Tefion FEP/Ag/Inconel/adhesive sheet	Eroded, discolored, cratered

APPENDIX B

M0003 DATABASE CONTENTS

(Sorted by Application)

DB#	Application	Description	Sample ID
225	Adhesive bond, hardware, solar power	Thin solar cell, standard Si	L3IV-8-63-3
224	Adhesive bond, hardware, solar power	Thin film solar cell, CuInSe2/CdS	L3IV-8-62-183 3
1061	Adhesive bond, solar power	Strip, Soldal R coating (A, DC93-500/ B, R 2501)	T6III-9-220-S0-R
1053	Adhesive bond, solar power	Strip, Soldal K coating (A, DC93-500/ B, R-2501)	T6III-9-217-S0-K
1009	Adhesive bond, solar power	Strip, Soldal D coating (A, Electrodag 502/ B, Electrodag 501)	T6III-9-168 S0 D
946	Adhesive bond, solar power	Strip, Soldal Q coating (A, DC93-500/ B, R-2501)	T6III-9-120-S0-Q
887	Adhesive bond, solar power	Strip, Soldal C coating, (A, Electrodag 502/ B, Electrodag 501)	T6III 9 61 S0 C
885	Adhesive bond, solar power	Strip, Soldal J coating (A, DC93-500/ B, R-2500)	T6III-9 59-S0-J
493	Adhesive bond, solar power	Strip, Soldal H coating (A, DC93-500/ B, R-2500)	L6III 9 238 S0 H
472	Adhesive bond solar power	Strip Soldal B coating (A Electrodag 502 / B, Electrodag 501)	L6III 9 217 S0 B
430	Adhesive bond, solar power	Strip, Soldal P coating (A, DC93-500/ B, R 2501)	L6III-9-175 S0-P
305	Adhesive bond, solar power	Strip, Soldal A coating, (A, Electrodag 502 / B, Electrodag 501)	L6III-9-61 S0-A
289	Adhesive bond, solar power	Strip, Soldal G coating (A, DC93-500/ B, R-2500)	L6III-9-45 S0 G
272	Adhesive bond, solar power	Strip, Soldal O coating: (A, DC93-500/ B, R-2501)	L6III-9-29-S0-0
1100	Adhesive bond thermal control	7 µm quartz fabric chemical and heat cleaned (+450°C), adhesive bond, General Electric	T6VI 5 15 A6
515	Adhesive bond, thermal control	7 µm quartz fabric chemical and heat cleaned (+450°C), adhesive bond, General Electric	L6VI-5 16-A6
32	Adhesive bond, thermal control	7 µm quartz fabric chemical and heat cleaned (+450 °C), adhesive bond/Al, General Electric	L3II-5-24 A6
600	Adhesive bond, thermal control	7 µm quartz fabric chemical and heat cleaned (+450°C), adhesive bond/Al, General Electric	T3II-5-24-A6
688	Antennae	Solid plastic-metal laminate	T3III 9-36-AM4a
687	Antennae	Plastic-metal mesh laminate	T3III-9 35 AM3d
686	Antennae	Gold-plated knitted Dacron mesh	T3III-9-34-AM2b
685	Antennae	Gold-plated woven Dacron mesh	T3III-9-33-AM1c
684	Antennae	Solid plastic-metal laminate	T3III 9 32 AM4c
683	Antennae	Plastic-metal mesh laminate	T3III-9-31-AM3c
682	Antennae	Gold-plated knitted Dacron mesh	T3III-9-30-AM2c
681	Antennae	Gold-plated woven Dacron mesh	T3III-9-29-AM1B
123	Antennae	Solid plastic-metal laminate	L3III-9-36-AM4D
122	Antennae	Plastic-metal mesh laminate	L3III-9-35-AM3B
121	Antennae	Gold-plated knitted Dacron mesh	L3III-9 34-AM2A
120	Antennae	Gold-plated woven Dacron mesh	L3III-9-33-AM1A
119	Antennae	Solid plastic-metal laminate	L3III 9 32 AM4E
118	Antennae	Plastic-metal mesh laminate	L3III-9 31 AM3E
117	Antennae	Gold-plated knitted Dacron mesh	L3III-9-30-AM2E
116	Antennae	Gold-plated woven Dacron mesh	L3III-9-29-AM1E
650	Contamination monitor	ZnSe crystal	T3II-18-74-X
82	Contamination monitor	ZnSe crystal	L3II-18-74-I
622	Contamination monitor, electronics	Coated quartz crystal microbalance (QCM) - passive, 150A ZnS/9000A Al+Al2O3	T3II-14-46-04
621	Contamination monitor, electronics	Coated quartz crystal microbalance (QCM) - active, 150A In2O3/9000A Al+Al2O3	T3II-14-45-03
54	Contamination monitor, electronics	Coated quartz crystal microbalance (QCM) - passive, 150A ZnS/9000A Al+Al2O3	L3II-14-46-6
53	Contamination monitor, electronics	Coated quartz crystal microbalance (QCM) - active, 150A In2O3/9000A Al+Al2O3	L3II-14-45-12
1111	Contamination monitor, optics	Alummized fused silica mirror	T6VI-11-26-S04
1109	Contamination monitor, optics	ZnSe infrared plate	T6VI-11-24-05
711	Contamination monitor, optics	Alummized fused silica mirror	T3III 11-59-S03

DBs	Application	Description	Sample ID
625	Contamination monitor, optics	Aluminized fused silica mirror	T3II-11-49-S06
624	Contamination monitor, optics	Low scatter black glass	T3II-11-48-BG06
514	Contamination monitor optics	ZnSe infrared plate	L6VI-11-15-2
509	Contamination monitor optics	Gold coated nickel mirror	L6VI-11-10-C82-4
508	Contamination monitor optics	Low scatter nickel mirror	L6VI-11-9-N02
505	Contamination monitor optics	Aluminized fused silica mirror	L6VI-11-6-S02
147	Contamination monitor optics	ZnSe infrared plate	L3III 11-60-1
146	Contamination monitor optics	Aluminized fused silica mirror	L3III 11-59-S01
57	Contamination monitor optics	Aluminized fused silica mirror	L3II-11-49-S07
521	Contamination monitor thermal control optics	Corning 7940 second surface aluminum mirror	L6VI 11-22-2
1149	Electro optic signature	WO3 (UV treated)/polyurethane/Al substrate	T6VI 1 64 C63
1148	Electro optic signature	WO3 (UV treated)+IR dye/Al substrate	T6VI 1 63 B63
1147	Electro optic signature	WO3 (UV treated)/polyurethane/Al substrate	T6VI-1-62-A63
1127	Electro optic signature	WO3 (UV treated)/polyurethane/Al substrate	T6VI-1-37-A22
1121	Electro optic signature	WO3 (UV treated)/polyurethane/Al substrate	T6VI-1 36 C22
1120	Electro optic signature	WO3 (UV treated)+IR dye/Al substrate	T6VI-1-35-B22
1119	Electro optic signature	WO3 (UV treated)/polyurethane/Al substrate	T6VI-1-34-A11
1118	Electro optic signature	WO3 (UV treated) polyurethane/Al substrate	T6VI 1-33-C11
1117	Electro optic signature	WO3 (UV treated)+IR dye/Al substrate	T6VI-1-32-B11
631	Electro optic signature	WO3 (UV treated)/polyurethane/Al substrate	T3II-1-55-C7
630	Electro optic signature	WO3 (UV treated)+IR dye/Al substrate	T3II-1 54 B7
629	Electro optic signature	WO3 (UV treated)/polyurethane/Al substrate	T3II-1-53-A7
568	Electro optic signature	WO3 (UV treated)/polyurethane/Al substrate	L6VI-1 69-C52
565	Electro optic signature	WO3 (UV treated)/polyurethane/Al substrate	L6VI-1-66-A52
564	Electro optic signature	WO3 (UV treated)+IR dye/Al substrate	L6VI-1-65-B52
563	Electro optic signature	WO3 (UV treated)/polyurethane/Al substrate	L6VI-1-64-A41
562	Electro optic signature	WO3 (UV treated)+IR dye/Al substrate	L6VI-1 63-B41
561	Electro optic signature	WO3 (UV treated)/polyurethane/Al substrate	L6VI-1-62-C41
503	Electro optic signature	WO3 (UV treated)/polyurethane/Al substrate	L6VI-1 4-A33
502	Electro optic signature	WO3 (UV treated)+IR dye/Al substrate	L6VI-1-3-B33
501	Electro optic signature	WO3 (UV treated)/polyurethane/Al substrate	L6VI-1-2-C33
1105 13	Electro optics, optics	Thermal switch (non linear) Non Linear material/Ge	T6VI-13 20-13A
696 1	Electronics	GaAs FETs, bulk GaAs	T3III-19 44 D-3639D
696 09	Electronics	GaAs FETs, bulk GaAs	T3III-19-44-D-3639C
696 08	Electronics	GaAs FETs, bulk GaAs	T3III-19-44-D-16
695 07	Electronics	GaAs FETs, bulk GaAs	T3III 19-44-D-15
696 06	Electronics	GaAs FETs, bulk GaAs	T3III-19-44-D-14
696 05	Electronics	GaAs FETs, bulk GaAs	T3III-19-44-D-13
696 04	Electronics	GaAs FETs, bulk GaAs	T3III-19-44-D-12
696 03	Electronics	GaAs FETs, bulk GaAs	T3III-19-44-D-11
696 02	Electronics	GaAs FETs, bulk GaAs	T3III-19-44-D-10
696 01	Electronics	GaAs FETs, bulk GaAs	T3III-19-44-D-09
695 09	Electronics	MOS Devices	T3III-19-43-C-09

DBs	Application	Description	Sample ID
695 08	Electronics	MOS devices	T3III-19-43-C-08
695 07	Electronics	MOS devices	T3III-19-43-C-07
695 06	Electronics	MOS device	T3III 19-43-C-06
695 05	Electronics	MOS devices	T3III-19-43-C-05
695 04	Electronics	MOS devices	T3III-19-43-C-04
695 03	Electronics	MOS devices	T3III 19 43 C 03
695 02	Electronics	MOS devices	T3III 19 43 C 02
695 01	Electronics	MOS devices	T3III 19-43 C-01
131 1	Electronics	GaAs FETs, bulk GaAs	L3III 19-44-B-3639B
131 09	Electronics	GaAs FETs, bulk GaAs	L3III 19 44 B 3639A
131 07	Electronics	GaAs FETs, bulk GaAs	L3III 19 44 B 07
131 06	Electronics	GaAs FETs, bulk GaAs	L3III 19 44 B-06
131 05	Electronics	GaAs FETs, bulk GaAs	L3III 19 44 B-05
131 02	Electronics	GaAs FETs, bulk GaAs	L3III 19-44 B-02
131 01	Electronics	GaAs FETs, bulk GaAs	L3III 19 44-B 01
130 1	Electronics	MOS Devices	L3III 19-43-A 10
130 09	Electronics	MOS Device	L3III 19 43 A 09
130 08	Electronics	MOS Device	L3III 19 43 A 08
130 07	Electronics	MOS Devices	L3III-19 43 A 07
130 06	Electronics	MOS Devices	L3III-19 43 A 06
130 05	Electronics	MOS Device	L3III 19 43 A 05
130 04	Electronics	MOS Device	L3III-19-43-A-04
130 03	Electronics	MOS Device	L3III-19 43 A-03
130 02	Electronics	MOS Device	L3III-19 43 A 02
130 01	Electronics	MOS Device	L3III-19 43-A-01
131 08	Electronics	GaAs FETs, bulk GaAs	L3III-19-44-B-08
131 04	Electronics	GaAs FETs, bulk GaAs	L3III-19-44 B 04
131 03	Electronics	GaAs FETs, bulk GaAs	L3III 19-44 B 03
696	Electronics, hardware	Anodized aluminum mounting plate with GaAs FETs, bulk GaAs	T3III 19 44 D-00
695	Electronics, hardware	Anodized aluminum mounting plate with MOS devices	T3III-19-43-C-00
576	Electronics, hardware	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag plated stainless steel hardware	T3I-9-8 CW4
575	Electronics, hardware	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	T3I-9 7-CW3
574	Electronics, hardware	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag plated stainless steel hardware	T3I 9 6 CW2
573	Electronics, hardware	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	T3I-9-5-CW1
131	Electronics, hardware	Anodized aluminum mounting plate with GaAs FETs, bulk GaAs	L3III-19-44-B-00
130	Electronics, hardware	Anodized aluminum mounting plate with MOS devices	L3III-19-43-A-00
8	Electronics, hardware	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	L3I-9-8-CW4
7	Electronics, hardware	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	L3I-9-7 CW3
6	Electronics, hardware	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	L3I-9-6-CW2
5	Electronics, hardware	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	L3I-9-5-CW1
1054	Electronics, hardware, insulation	Coated wire, MIL-W-22759/32	T6III-9-213-W2
942	Electronics, hardware, insulation	Coated wire, MIL-W-22759/32	T6III-9-116-WI
789	Hardware, adhesive bond, solar power	Thin film solar cell, standard Si	T3IV-8 63-8

DB#	Application	Description	Sample ID
788	Hardware, adhesive bond, solar power	thin film solar cell, CuInSe2/CdS	T3IV-8-62-183-4
1105 07	Insulation, thermal control	Ceramic MLI retainer MACOR	T6VI-13-20-07A
1105 02	Insulation, thermal control	Reflective MLI retainer Al2O3(0 3255μmm) / Ag(0 2μm) /Al2O3 (0 0245μm) / VESPEL	T6VI-13-20-02A
1146	Laser optics optics	Diamond-turned nickel coated copper	T6VI-2 61-3
1145	Laser optics optics	Diamond-turned copper	T6VI-2 60 8685
1144	Laser optics optics	ThF4/Ag/Cr coating lambda (1 06)/2 thick/ molybdenum substrate	T6VI-2-59-N13
1143	Laser optics optics	Polished molybdenum	T6VI-2-58 N9
1142	Laser optics optics	MgF2 coating, lambda (1 06)/2 thick/fused silica substrate	T6VI-2-57 011
1141	Laser optics optics	Fused SiO2	T6VI-2-56 008
1140	Laser optics optics	Diamond turned nickel coated copper B surface	T6VI 2-55 9
1139	Laser optics optics	Diamond turned nickel coated copper A surface	T6VI-2-54 7
1138	Laser optics optics	Diamond turned nickel coated copper A surface	T6VI-2 53 1
1137	Laser optics optics	Diamond-turned copper C surface	T6VI-2-52-8684
1136	Laser optics optics	Diamond-turned copper, B surface	T6VI-2-51-8689
1135	Laser optics optics	Diamond turned copper, A surface	T6VI-2-50-8691
1134	Laser optics optics	ThF4/Ag/Cr coating lambda (1 06)/2 thick/ molybdenum substrate	T6VI-2 49 N2
1133	Laser optics optics	ThF4/Ag/Cr coating lambda (1 06)/2 thick/ molybdenum substrate	T6VI 2 48 N12
1132	Laser optics optics	ThF4/Ag/Cr coating lambda (1 06)/2 thick/ molybdenum substrate	T6VI-2-47-N1
1131	Laser optics optics	Polished molybdenum	T6VI-2-46 N4
1130	Laser optics optics	Polished molybdenum	T6VI-2 45-N17
1129	Laser optics optics	Polished molybdenum	T6VI-2-44-N21
1128	Laser optics optics	MgF2 coating, lambda (1 06)/2 thick/fused silica substrate	T6VI-2-43-023
1127	Laser optics optics	MgF2 coating, lambda (1 06)/2 thick/fused silica substrate	T6VI 2-42 013
1126	Laser optics optics	MgF2 coating, lambda (1 06)/2 thick/fused silica substrate	T6VI-2-41-009
1125	Laser optics optics	Fused SiO2	T6VI-2-40-029
1124	Laser optics optics	Fused SiO2	T6VI-2-39-021
1123	Laser optics optics	Fused SiO2	T6VI-2-38-005
1106 11	Laser optics optics	Wide band anti reflection coating Al2O3/ZrO2/MgF2	T6VI-6-21-II 11
1106 1	Laser optics optics	Wide band reflector coating ZrO2/SiO2 on silica	T6VI-6-21 II-10
1106 09	Laser optics optics	Wide band reflector coating TiO2/SiO2 on silica	T6VI-6-21-II-9
1106 08	Laser optics, optics	Solar telescope high reflectance coating Au/Spinel on Ni/Al	T6VI-6-21 II 8
1106 07	Laser optics, optics	Solar telescope high reflectance coating Electroplated Au on Ni/Al	T6VI-6-21-II-7
1106 06	Laser optics, optics	Telescope/gimbal high reflectance coating SiO2/Ag on Cervit	T6VI-6-21-II 6
1106 05	Laser optics, optics	Telescope/gimbal high reflectance coating SiO2/Al2O3/Ag on silica	T6VI-6-21-II-5
1106 04	Laser optics, optics	Telescope/gimbal high reflectance coating ZnS/ThF4/Ag on silica	T6VI-6-21-II-4
1106 03	Laser optics, optics	Lens anti-reflection coating Yttralox/MgF2 on Silica	T6VI-6-21-II-3
1106 02	Laser optics, optics	Laser mirror high reflectance coating: TiO2/SiO2 on silica	T6VI-6-21-II-2
1106 01	Laser optics, optics	Laser rod anti-reflection coating: ZrO2/SiO2 on YAG	T6VI-6-21-II-1
560	Laser optics, optics	Diamond-turned nickel coated copper, B surface	L6VI-2-61-6
559	Laser optics, optics	Diamond-turned nickel coated copper, A surface	L6VI-2-60-4
558	Laser optics, optics	Diamond-turned nickel coated copper, A surface	L6VI-2-59-2
557	Laser optics, optics	Diamond-turned copper, A surface	L6VI-2-58-8686
556	Laser optics optics	Diamond-turned copper, B surface	L6VI-2-57-8683

DB#	Application	Description	Sample ID
555	Laser optics, optics	Diamond turned copper, A surface	L6VI-2-56-8692
554	Laser optics, optics	ThF4/Ag/Cr coating lambda (1 06)/2 thick/ molybdenum substrate	L6VI-2-55-N14
553	Laser optics, optics	ThF4/Ag/Cr coating lambda (1 06)/2 thick/ molybdenum substrate	L6VI-2-54 N6
552	Laser optics, optics	ThF4/Ag/Cr coating lambda (1 06)/2 thick/ molybdenum substrate	L6VI-2-53-N3
551	Laser optics, optics	Polished molybdenum	L6VI-2-52 N8
550	Laser optics, optics	Polished molybdenum	L6VI 2 51 N23
549	Laser optics, optics	Polished molybdenum	L6VI-2-50 N19
548	Laser optics, optics	MgF2 coating, lambda (1 06)/2 thick/fused silica substrate	L6VI-2 49 024
547	Laser optics, optics	MgF2 coating, lambda (1 06)/2 thick/fused silica substrate	L6VI-2-48 022
546	Laser optics, optics	MgF2 coating, lambda (1 06)/2 thick/fused silica substrate	L6VI 2 47 014
545	Laser optics, optics	Fused SiO2	L6VI-2 46 019
544	Laser optics, optics	Fused SiO2	L6VI 2 45 018
543	Laser optics, optics	Fused SiO2	L6VI-2-44 002
64	Laser optics, optics	Diamond-turned copper	L3II-2-56 8688
63	Laser optics, optics	ThF4/Ag/Cr coating lambda (1 06)/2 thick/ molybdenum substrate	L3II-2 55-N24B
62	Laser optics, optics	Polished molybdenum	L3II-2 54-N18A
61	Laser optics, optics	MgF2 coating, lambda (1 06)/2 thick/fused silica substrate	L3II 2-53-010
60	Laser optics, optics	Fused SiO2	L3II-2-52 006
65	Laser optics, optics	Diamond turned nickel coated copper	L3II-2-57-10
1116	Optics	Mirror, Ag + (Al2O3/Si)^2 coating on polished molybdenum substrate	T6VI-7-31-4
1115	Optics	Mirror, Ag + (ThF4/ZnS)^3 coating on polished molybdenum substrate	T6VI-7 30-36
1105 2	Optics	Staring horizon sensor Dielectric Stack/ZnSe/Dielectric stack	T6VI-13-20-20A
1105 19	Optics	Scanning horizon sensor Dielectric stack/ Ge	T6VI-13-20-19A
1105 18	Optics	Reflective/transmissive filter ZnS/SrF2/ITO/SiO2	T6VI-13 20-18A
1105 17	Optics	Sapphire cover slip	T6VI-13-20-17A
1105 16	Optics	Sapphire second surface mirror	T6VI-13-20-16A
1105 14	Optics	Absorptive stack Dielectric stack/SiO2/Al2O3/Ni Au/ Be	T6VI-13-20-14A
1105 12	Optics	Wide band reflective stack	T6VI-13 20-12A
640	Optics	ZnS coating on SiO2 substrate	T3II-7-64-11
639	Optics	As2Se3 coating on SiO2 substrate	T3II-7-63-12
638	Optics	PbF2 coating on SiO2 substrate	T3II-7 62-8
637	Optics	ThF4 coating on SiO2 substrate	T3II-7-61-7
636	Optics	Si coating on SiO2 substrate	T3II-7-60-4
635	Optics	Al2O3 coating on SiO2 substrate	T3II-7 59-2
637	Optics	Mirror, Al2O3 coating, lambda/2 thick @ 2.7 µm, CaF2 substrate	T3II-7-56-23
567	Optics	Mirror, Al + (Al2O3/ZnS)^9 multi-layer coating on polished molybdenum substrate	L6VI 7-68-15
566	Optics	Mirror, Si/SiOx coating on polished molybdenum substrate	L6VI-7-67-239
500	Optics	Mirror, Ag + (Al2O3/Si)^3 multi-layer coating on polished molybdenum substrate	L6VI-7-1-46-11
73	Optics	ZnS coating on SiO2 substrate	L3II-7-65-10
72	Optics	SiOx coating on SiO2 substrate	L3II-7-64-9
71	Optics	ThF4 coating on SiO2 substrate	L3II-7-63-6
70	Optics	NaF coating on SiO2 substrate	L3II-7-62-5
69	Optics	Si coating on SiO2 substrate	L3II-7-61-3

DB#	Application	Description	Sample ID
68	Optics	Al2O3 coating on SiO2 substrate	L3II-7-60-1
1114	Optics, contamination monitor	Low scatter nickel mirror	T6VI-11-29-N04
1113	Optics, contamination monitor	Gold coated copper mirror	T6VI-11-28-C81-8
1112	Optics, contamination monitor	Low scatter black glass	T6VI-11-27-BG04
717	Optics, contamination monitor	ZnSe infrared plate	T3III 11-60-04
626	Optics, contamination monitor	Low scatter nickel mirror	T3II-11 50-N03
504	Optics, contamination monitor	Low scatter black glass	L6VI-11-5-BG02
58	Optics, contamination monitor	Low scatter nickel mirror	L3II-11-50-N01
56	Optics, contamination monitor	Low scatter black glass	L3II-11-48-BG01
149	Optics, contamination monitor, thermal control	Corning 7940 second surface aluminum mirror	L3III-11 62-X
1105 15	Optics, electro optics	Non linear material VO2/BaF2 , Honeywell	T6VI 13 20 15A
742	Optics, structures	Mirror GY70/201/2024 clad (6 ply)	L6III 10 6 AL8 7
741	Optics, structures	Mirror, graphite/glass Celion 6000/borosilicate glass	L6III-10-5-GL2-1
1110	Optics, thermal control, contamination monitor	Corning 7940 second surface aluminum mirror	T6VI-11-25-5
714	Optics, thermal control, contamination monitor	Corning 7940 second surface aluminum mirror	T3III-11-62 3
527	Radar camouflage	Resonant window	T3I-1-4-B
521	Radar camouflage	Capacitive grid	T3I-1-3-A
520	Radar camouflage	Circuit analog sheet	T3I-1 2 D
569	Radar camouflage	Resonant reflector	T3I-1-1-C
4	Radar camouflage	Resonant window	L3I 1-4 B
3	Radar camouflage	Capacitive grid	L3I-1-3-A
2	Radar camouflage	Circuit analog sheet	L3I-1-2-D
1	Radar camouflage	Resonant reflector	L3I-1-1-C
1108	Radiation dosimetry	Thermoluminescent dosimeter, LiF	T6VI-12-23-6
796	Radiation dosimetry	Thermoluminescent dosimeter, LiF	T3IV-17-70 T
713	Radiation dosimetry	Thermoluminescent dosimeter, LiF	T3III-12-61 3
623	Radiation dosimetry	Thermoluminescent dosimeter, LiF	T3II-12-47-4
526	Radiation dosimetry	Thermoluminescent dosimeter, LiF	L6VI-12-27-3
232	Radiation dosimetry	Thermoluminescent dosimeter, LiF	L3IV-17-70-L
148	Radiation dosimetry	Thermoluminescent dosimeter, LiF	L3III-12-61-2
55	Radiation dosimetry	Thermoluminescent dosimeter, LiF	L3II-12-47-1
1107	Solar power	Conventional silicon cells, 5 cell string	T6VI-4-22-X2
749	Solar power	Conventional silicon cells, 5 cell string	T3IV-4-23-X4
748	Solar power	High performance silicon cells, 5 cell string	T3IV-4-22-D
747	Solar power	Vertical junction silicon cells, 5 cell string	T3IV-4-21 VJ2
746	Solar power	HESP II GaAs cells, 5 cell string	T3IV-4-20-GA2
745	Solar power	HESP II silicon cells, 5 cell string	T3IV-4-19-C
520	Solar power	Conventional silicon cells, 5 cell string	L6VI-4-21-X1
185	Solar power	Conventional silicon cells, 5 cell string	L3IV-4-23-X3
184	Solar power	High performance silicon cells, 5 cell string	L3IV-4-22-B
183	Solar power	Vertical junction silicon cells, 5 cell string	L3IV-4-21-VJ1
182	Solar power	HESP II Ga As cells, 5 cell string	L3IV-4-20-GA1
181	Solar power	HESP II silicon cells, 5 cell string	L3IV-4 19-A

DB#	Application	Description	Sample ID
812	Solar power optics	Cerra, Delrin retainer, OCLI	T3IV-4-86-63
811	Solar power optics	7940 fused silica, Delrin retainer, OCLI	T3IV-4-85-59
810	Solar power optics	7940 fused silica, Delrin retainer, OCLI	T3IV-4-84-55
809	Solar power optics	7070 fused silica, Delrin retainer, OCLI	T3IV-4-83-51
807	Solar power optics	Mark IV coating on 7940 fused silica, Delrin retainer OCLI	T3IV-4-81-43
806	Solar power optics	Erosion coating on 7940 fused silica Delrin retainer OCLI	T3IV-4-80-39
805	Solar power optics	Erosion coating on 7940 fused silica, Delrin retainer OCLI	T3IV 4 79 35
803	Solar power optics	Mark III E coating on 7940 fused silica, Delrin retainer OCLI	T3IV-4-77-27
802	Solar power optics	Mark III D coating on 7940 fused silica, Delrin retainer, OCLI	T3IV-4 76 23
801	Solar power optics	HEA coating 3 ion 7940 fused silica, Delrin retainer, OCLI	T3IV-4 75 19
800	Solar power optics	Reflective 350nm coating on 7940 fused silica, Delrin retainer, OCLI	T3IV 4-74-15
799	Solar power optics	Reflective 350nm coating on Cerra, Delrin retainer, OCLI	T3IV-4-73 11
798	Solar power optics	Reflective 350nm coating on 7940 fused silica, Delrin retainer, OCLI	T3IV-4-72-7
797	Solar power optics	Standard 350nm coating on 7940 fused silica, Delrin retainer, OCLI	T3IV-4-71 3
747	Solar power optics	Cerra, Delrin retainer, OCLI	T3IV-4-16-62
741	Solar power optics	7940 fused silica Delrin retainer, OCLI	T3IV-4 15 58
740	Solar power optics	7940 fused silica Delrin retainer, OCLI	T3IV-4-14 54
739	Solar power optics	7070 fused silica Delrin retainer, OCLI	T3IV 4 13 50
737	Solar power optics	Mark IV coating/7940 fused silica Delrin retainer OCLI	T3IV 4 11 42
736	Solar power optics	Erosion coating/7940 fused silica, Delrin retainer OCLI	T3IV-4 10 38
735	Solar power optics	Erosion coating/7940 fused silica, Delrin retainer, OCLI	T3IV-4-9 34
733	Solar power optics	Mark III E coating/7940 fused silica, Delrin retainer, OCLI	T3IV-4-7-26
732	Solar power optics	Mark III D coating/7940 fused silica, Delrin retainer, OCLI	T3IV-4-6-22
731	Solar power optics	HEA 3 1 coating/7940 fused silica, Delrin retainer OCLI	T3IV-4 5 18
730	Solar power optics	Reflective 350 nm coating/7940 fused silica, Delrin retainer, OCLI	T3IV-4 4-14
729	Solar power optics	Reflective 350 nm coating/CERIA, Delrin retainer, OCLI	T3IV-4-3-10
728	Solar power optics	Reflective 350 nm coating/7940 fused silica, Delrin retainer, OCLI	T3IV-4-2-6
727	Solar power optics	Standard 350 nm coating/7940 fused silica, Delrin retainer, OCLI	T3IV-4-1-2
633	Solar power optics	Solar cell coating	T3II-4-57-3
178	Solar power optics	Cerra, Delrin retainer, OCLI	L3IV-4-16-61
177	Solar power optics	7940 fused silica, Delrin retainer, OCLI	L3IV-4-15 57
176	Solar power optics	7940 fused silica, Delrin retainer, OCLI	L3IV-4-14 52
175	Solar power optics	7070 fused silica, Delrin retainer, OCLI	L3IV-4-13-49
173	Solar power optics	Mark IV coating/7940 fused silica, Delrin retainer, OCLI	L3IV-4-11-41
172	Solar power optics	Erosion coating/7940 fused silica, Delrin retainer, OCLI	L3IV-4-10-37
171	Solar power optics	Erosion coating/7940 fused silica, Delrin retainer, OCLI	L3IV-4-9-33
169	Solar power optics	Mark III E coating/7940 fused silica, Delrin retainer, OCLI	L3IV-4-7-25
168	Solar power optics	Mark III D coating/7940 fused silica, Delrin retainer, OCLI	L3IV-4-6-24
167	Solar power optics	HEA 3 1 coating/7940 fused silica, Delrin retainer, OCLI	L3IV-4-5-17
166	Solar power optics	Reflective 350 nm coating/7940 fused silica, Delrin retainer, OCLI	L3IV-4-4-13
165	Solar power optics	Reflective 350 nm coating/CERIA, Delrin retainer, OCLI	L3IV-4-3-9
164	Solar power optics	Reflective 350 nm coating/7940 fused silica, Delrin retainer, OCLI	L3IV-4-2-5
163	Solar power optics	Standard 350 nm coating/7940 fused silica, Delrin retainer, OCLI	L3IV-4-1-1

OBS	Application	Description	Sample ID
67	Solar power, optics	Solar cell coating	L3II-4-59-SC2
66	Solar power, optics	Solar cell coating	L3II-4-58-SC1
808	Solar power, optics contamination monitor	Contamination coating on 7940 fused silica, Delrin retainer, OCLI	T3IV-4-82-47
804	Solar power, optics contamination monitor	Contamination coating on 7940 fused silica, Delrin retainer, OCLI	T3IV-4-78-31
738	Solar power optics contamination monitor	Contamination coating/7940 fused silica, Delrin retainer, OCLI	T3IV-4-12-46
734	Solar power optics contamination monitor	Contamination coating/7940 fused silica, Delrin retainer, OCLI	T3IV-4-8-30
174	Solar power optics contamination monitor	Contamination coating/7940 fused silica, Delrin retainer, OCLI	L3IV-4-12-45
170	Solar power optics contamination monitor	Contamination coating/7940 fused silica, Delrin retainer, OCLI	L3IV 4-8-29
1085	Structures	Strip, SiC fiber SC S2/Al	T6III-10-244-AL32-5
1081	Structures	Strip, SiC fiber SC S2/Al	T6III-10-240 AL32-3
1080	Structures	Strip, graphite/LARC 160	T6III-10-239-PI2-10
1079	Structures	Strip, graphite/LARC 160	T6III-10-238-PI2 9
1078	Structures	Strip, graphite/LARC 160	T6III 10-237-PI2-8
1077	Structures	Strip, T300/P1700, (0/90)	T6III-10-236-PS1-12
1076	Structures	Strip T300/V378A (0/45/90/135)S2	T6III-10-235-PI5 12
1075	Structures	Strip T300/V378A (0/45/90/135)S2	T6III-10-234-PI5 11
1074	Structures	Strip Celion 6000/PMR 15, (0)	T6III 10-233-PI5-10
1073	Structures	Strip P75S/CE 339, (0/45/90/135)S4	T6III 10-232-EP21 8
1072	Structures	Strip P75S/CE 339 (0/45/90/135)S4	T6III 10-231 EP21 7
1071	Structures	Strip, T300/polyether sulfone/with leafing Al coating	T6III-10-230-PS12 2
1069	Structures	Strip, P100/201/2024 Al (+20°/-20°)S	T6III-10-228-AL33-7
1068	Structures	Strip, P100/201-2024 Al (+20°/-20°)S	T6III-10-227-AL33 5
1067	Structures	Strip, P100/AZ91C/AZ61A (+10°/-10°)S	T6III-10-226-MG10-8
1066	Structures	Strip, P100/AZ91C/AZ61A (+10°/-10°)S	T6III-10-225-MG10-3
1065	Structures	Strip, GY70/CE-339 (0/45/90/135)S2	T6III-10-224-EP22-10
1064	Structures	Strip, GY70/CE 339 (0/45/90/135)S2	T6III 10-223-EP22-6
1063	Structures	Strip, GY70/X-30/Sn In eut (0/45/90/135)4	T6III-10-222-EP2-6
1060	Structures	Strip, SiC whiskers/6061Al	T6III-10-219-AL31-4
1057	Structures	Strip, P100/AZ91C/AZ61A (90)	T6III 10-216-MG9-T5
1056	Structures	Strip, P100/AZ91C/AZ61A (90)	T6III-10-215-MG9-T7
1055	Structures	Strip, VS0054/EZ33A/AZ31B clad, (90)	T6III-10-214-MG6-4
1050	Structures	Strip, SiC whiskers/2124 Al	T6III-10-209-AL30-3
1049	Structures	Strip, T300/P1700 (0/90)	T6III-10-208-PS1-7
1048	Structures	Strip, Celion 6000/PMR-15 (0)	T6III-10-207-PI1-12
1047	Structures	Strip, Celion 6000/PMR-15 (0)	T6III-10-206 PI1-11
1046	Structures	Strip, GY70/X904B, (0)	T6III 10-205-EP7-4
1045	Structures	Strip, GY70/X904B (0/90/90/0)	T6III-10-204-EP6-4
1044	Structures	Strip, GY70/X904B (0)	T6III-10-203-EP5-4
1043	Structures	Strip, E-glass 120 Fabric/X904B, (0)	T6III-10-202-EP10-4
1042	Structures	Strip, T300/2 mil-3M 113 viscoelatic tape/5208	T6III-10-201-EP20-1
1041	Structures	Strip, T300/2 mil-3M 113 viscoelatic tape/5208	T6III-10-200-EP19-1
1040	Structures	Strip, T300/2 mil-3M 113 viscoelatic tape/5208	T6III-10-199-EP18-1
1039	Structures	Strip, GY70/934 (0/45/90/135)S2	T6III-10-198-EP13-8

DBS	Application	Description	Sample ID
1038	Structures	Strip. VS0054/EZ33A/AZ31B clad (0)	T6III-10-197-MG5-10
1037	Structures	Strip. VS0054/EZ33A/AZ31B clad (0)	T6III-10-196-MG5-21
1036	Structures	Strip. VS0054/EZ33A/AZ31B clad (0)	T6III-10-195-MG5-4
1035	Structures	Strip. GY70/934 (0/45/90/135)S2	T6III-10-194-EP13-7
1034	Structures	Strip. P100/AZ91C/AZ61A (0)	T6III-10-193 MG9 L8
1033	Structures	Strip. P100/AZ91C/AZ61A (0)	T6III-10-192-MG9 L4
1032	Structures	Strip. VS0054/EZ33A/AZ31B. (0)	T6III-10-191 MG3
1031	Structures	Strip. VS0054/EZ33A/AZ31B. (0)	T6III-10-190-MG3
1030	Structures	Strip. VS0054/EZ33A/AZ31B. (0)	T6III-10-189 MG3
1029	Structures	Strip. GY70/CE 339 (0/45/90/135)S2	T6III-10-188 EP22-4
1028	Structures	Strip. VSB32/6061 T6/6061 Al clad. (90)	T6III-10-187 AL15-14
1027	Structures	Strip. VSB32/6061 T6/6061 Al clad (90)	T6III-10-186-AL15-5
1026	Structures	Strip. VSB32/6061 T6/6061 Al clad. (0)	T6III-10 185-AL14-17
1025	Structures	Strip. VSB32/6061 T6/6061 Al clad. (0)	T6III-10-184-AL14-3
1024	Structures	Strip. VSB32/6061 T6/6061 Al clad. (0)	T6III 10 183-AL14 18
1023	Structures	Strip. Celion 6000/PMR-15 (0)	T6III-10 182-PI1 10
1022	Structures	Strip. AS/3501 6 (0)	T6III-10-181-EP4-13
1021	Structures	Strip. AS/3501-6 (0)	T6III-10 180 EP4-12
1020	Structures	Strip. AS/3501-6 (0)	T6III-10 179 EP4-11
1019	Structures	Strip. P75S/934. (0/45/90/135)S2	T6III-10 178-EP12 8
1018	Structures	Strip. P75S/934. (0/45/90/135)S2	T6III-10-177-EP12-7
1017	Structures	Strip. T300/P1700 (0/90)	T6III-10-176-PS1 8
1013	Structures	Strip. VS0054/EZ33A/AZ31B clad (0)	T6III-10 172-MG5-14
1008	Structures	Strip. graphite/glass Celion 6000/borosilicate glass	T6III-10-167-GL3-3
1007	Structures	Strip. VSB32/6061 T6/6061 Al (0)	T6III-10-166-AL12-12
1006	Structures	Strip. VSB32/6061 T6/6061 Al (0)	T6III-10-165-AL12 11
1005	Structures	Strip. VSB32/6061-T6/6061 Al (0)	T6III-10-164 AL12-10
1004	Structures	Strip. LAC 23-4688. elastomer	T6III-9-163-MPS-C 8
1003	Structures	Strip. GY70/201/2024 clad. (90)	T6III-10-162-AL6-8
1002	Structures	Strip. GY70/201/2024 clad. (90)	T6III-10-161-AL6-4
999	Structures	Strip. T300 tape/934 (0)	T6III 10 158-EP3 12
998	Structures	Strip. T300 tape/934 (0)	T6III-10-157-EP3 11
997	Structures	Strip. T300 tape/934 (0)	T6III-10-156-EP3-10
994	Structures	Strip. W-722 (Graphite/Glass fabric)/P1700	T6III-10-153-PS2-12
993	Structures	Strip. W-722 (Graphite/Glass fabric)/P1700	T6III-10-152-PS2 11
992	Structures	Strip. W-722 (Graphite/Glass fabric)/P1700	T6III 10-151 PS2 10
991	Structures	Strip. Invar LR35	T6III-10-150-SS1-10
990	Structures	Strip. LAC 23-4688. elastomer	T6III-9-149-MPS-C-6
988	Structures	Strip. GY70/X-30 (0/45/90/135)4	T6III-10-147-EP1-8
987	Structures	Strip. GY70/X-30 (0/45/90/135)4	T6III-10-146-EP1-7
986	Structures	Strip. GY70/201/2024 clad. (0)	T6III-10-145-AL5-14
985	Structures	Strip. GY70/201/2024 clad. (0)	T6III-10-144-AL5-13
984	Structures	Strip. GY70/201/2024 clad. (0)	T6III-10-143-AL5-6

DB#	Application	Description	Sample ID
983	Structures	Strip. LAC 23 4688, elastomer	T6III-9-142-MPS-C-5
982	Structures	Strip. GY70/201/2024 clad. (90)	T6III-10-141-AL4-8
981	Structures	Strip. GY70/201/2024 clad. (90)	T6III-10-140-AL4-7
980	Structures	Strip GY70/201/2024 clad. (0)	T6III-10-139-AL3-13
979	Structures	Strip. GY70/201/2024 clad. (0)	T6III-10-138 AL3 11
978	Structures	Strip GY70/201/2024 clad. (0)	T6III-10-137-AL3-10
977 04	Structures	Wire S/C/6061Al	T6III-10-136-14
977 03	Structures	Wire S/C/6061Al	T6III-10-136-13
977 02	Structures	Wire. S/C/6061Al	T6III 10 136 12
977 01	Structures	Wire S/C/6061Al	T6III-10 136 11
976	Structures	Wire. S/C/6061Al	T6III-10-135-10
975	Structures	Wire. P55 (10K)/A791C	T6III-10-135-9
974	Structures	Wire. P100/AZ31B (Ti + B)	T6III-10-135-8
973	Structures	Wire. P55 (10K)/6061Al	T6III-10-135-7
972	Structures	Wire. P100/6061 Al (Ti + B)	T6III-10-135-6
971	Structures	Wire. T300/6061Al	T6III-10 135 5
970	Structures	Wire P55/6061 Al (Ti + B)	T6III 10 135 4
969	Structures	Wire. GY70 (B1)/201	T6III 10 135 3
968	Structures	Wire. P55 (TiO2)/6061 Al (Ti + B)	T6III-10-135-2
967	Structures	Wire. P100/AZ61A (Ti + B)	T6III-10-135-1
966	Structures	Strip GY70/201 clad (0/±60°)s	T6III-10-134 AL7-13
965	Structures	Strip. GY70/201 clad (0/±60°)s	T6III-10-134-AL7 12
964	Structures	Strip. GY70/201 clad (0/±60°)s	T6III 10-133-AL7-15
963	Structures	Strip. GY70/201 clad (0/±60°)s	T6III-10-133-AL7-14
962	Structures	Strip. GY70/201/2024 clad. (0/±60°)s	T6III-10-132-AL7-7
961	Structures	Strip. P75S/934. 102 15A	T6III-9-132-CM48-5
960	Structures	Strip. P75S/934. 102 15A	T6III-9-132-CM48-2
959	Structures	Strip. GY70/201/2024 clad (0/±60°)s	T6III-10-131-AL7 3
958	Structures	Strip. P75S/F593. 102-270	T6III-9-131-CM47-4
957	Structures	Strip. P75S/F593. 102-270	T6III-9-131-CM47-1
956	Structures	Mirror. GY70/201/2024 clad. (0/±60°)s	T6III-10-130 AL8 5
955	Structures	Mirror. GY70/201/2024 clad.(0/±60°)s	T6III-10-129-AL8-3
948	Structures	Strip. Celion 6000/polyimide	T6III-10-122-PI4
945	Structures	Strip. T300 fabric/P1700. (0,90)	T6III-10-119-PS1-10
944	Structures	Strip. T300/V378A. (0/45/90/135)S2	T6III-10-118-PIS-6
943	Structures	Strip. T300/V378A. (0/45/90/135)S2	T6III-10-117-PIS-5
941	Structures	Strip. P75S/CE 339. (0/45/90/135)S4	T6III-10-115-EP21-4
940	Structures	Strip. P75S/CE-339. (0/45/90/135)S4	T6III-10-114-EP21-3
939	Structures	Strip. P100/AZ91C/AZ61A (+10°/-10°)S	T6III-10-113-MG10-6
938	Structures	Strip. P100/AZ91C/AZ61A (+10°/-10°)S	T6III-10-112-MG10-4
937	Structures	Strip. P100/201/2024 Al (+20°/-20°)S	T6III-10-111-AL33-8
936	Structures	Strip. P100/201/2024 Al (+20°/-20°)S	T6III-10-110-AL33-1
935	Structures	Strip. GY70/X 30(0/45/90/135)S2. Sn-In Eutectic coating	T6III-10-109-EP2-5

DB#	Application	Description	Sample ID
934	Structures	Strip. T300/polyether sulfone/with leafing Al coating	T6III-10-108-PS12-1
933	Structures	Strip. SiC fiber. SC S2/Al	T6III-10-106-AL32-7
932	Structures	Strip. LAC23 4688. elastomer	T6III-9-105-MPS-C-4
931	Structures	Strip. GY70/934 (0/45/90/135)S2	T6III-10-104-EP13-3
930	Structures	Strip. VS0054/EZ33A/AZ31B clad. (0)	T6III-10-103-MG5-3
929	Structures	Strip. GY70/CE339 (0/45/90/135)S2 epsilon meas SG4	T6III-10-102-EP22-8
928	Structures	Strip W 722 (Graphite/Glass fabric)/P1700 epsilon meas. SG5	T6III-10-101-PS2-2
927	Structures	Strip VS0045/EZ33A/AZ31B clad (0) epsilon meas. SG6 CTS 4	T6III-10-100-MG3-18
926	Structures	Strip. SiC fiber. SC S2/Al	T6III-10-97-AL32-6
925	Structures	Strip VS837/6061 T6/6061 Al clad (0)	T6III-10-96-AL14-4
924	Structures	Strip GY70/201/2024 clad (90)	T6III-10-95-AL6-7
923	Structures	Strip SiC whiskers/2124 Al	T6III-10-94-AL30-1
922	Structures	Strip. SiC whiskers/6061Al	T6III-10-93-AL31-3
921	Structures	Strip. VS0054/EZ33A/AZ31B clad. (90)	T6III-10-92-MG6-3
920	Structures	Strip T300 fabric/P1700. (0 90)	T6III-10-91-PS1-4
919	Structures	Strip T300/V378A 160	T6III-10-90-PI2-4
918	Structures	Strip Celion 6000/PMR 15 (0)	T6III-10-89-PI1-5
917	Structures	Strip VS837/6061 T6/6061 Al clad (0)	T6III-10-88-AL14-16
916	Structures	Strip. GY70/CE 339 (0/45/90 135)S2	T6III-10-87-EP22-2
915	Structures	Strip. GY70/X904B [+45/(-45)2/+45]4T	T6III-10-86-EP7-2
914	Structures	Strip. LAC 23 4688. elastomer	T6III-9-85-MPS-C-2
913	Structures	Strip. GY70/X904B. (0/90/90/0)	T6III-10-84-EP6-2
912	Structures	Strip. GY70/X904B. (0)	T6III-10-83-EP5-2
911	Structures	Strip. E glass 120 fabric/X904B. (0)	T6III-10-80-EP10-2
910	Structures	Strip. GY70/201/2024. clad (90)	T6III-10-79-AL6-3
909	Structures	Strip. GY70/934 (0/45/90/135)S2	T6III-10-76-EP13-4
908	Structures	Strip. P100/AZ91C/AZ61A (0°)	T6III-10-75-MG9-L7
907	Structures	Strip. VS0054/EZ33A/AZ31B clad. (0). epsi meas. SG1	T6III-10-74-MG5-22
906	Structures	Strip. T300/polyether sulfone. epsi meas. SG2	T6III-10-73-PS11-2
905	Structures	Strip. Celion 6000/PMR-15. epsi meas. SG3	T6III-10-72-PI1-6
904	Structures	Strip. VS0054/EZ33A/AZ31B. (90)	T6III-10-71-MG4-14
903	Structures	Strip. VS0054/EZ33A/AZ31B. (90)	T6III-10-70-MG4-3
902	Structures	Strip. P100/AZ91C/AZ61A (0)	T6III-10-69-MG9-L6
901	Structures	Strip. GY70/X-30 (0/45/90/135)S2. epsi meas. SG7	T6III-10-68-EP1-3
900	Structures	Strip. graphite/LARC 160. epsi meas. SG8	T6III-10-67-PI2-2
899	Structures	Strip. T300/P1700 (0/90). epsi meas. SG9	T6III-10-66-PS1-2
898	Structures	Strip. T300/V378A (0/45/90/135)S2. epsi meas. SG10	T6III-10-65-PI5-3
897	Structures	Strip. AS/3501-6. epsi meas. SG11	T6III-10-64-EP4-3
896	Structures	Strip. T300 tape/934. epsi meas. SG12. CTS 13	T6III-10-63-EP3-2
895	Structures	Strip. AS/3501-6 (0)	T6III-10-58-EP4-7
894	Structures	Strip. AS/3501-6 (0)	T6III-10-57-EP4-6
893	Structures	Strip. P75S/934. (0/45/90/135)S2	T6III-10-56-EP12-4
892	Structures	Strip. P75S/934. (0/45/90/135)S2	T6III-10-55-EP12-3
891	Structures		

DBB	Application	Description	Sample ID
880	Structures	Strip, graphite/glass Celion 6000/borosilicate glass	T6III-10-54-GL1-2
873	Structures	Strip, VS0054/EZ33A/AZ31B, clad (0)	T6III-10-47-MG5-13
872	Structures	Strip, GY70/201/2024 clad, (0)	T6III-10-46-AL3 6
871	Structures	Strip, P100/AZ91C/AZ61A (90)	T6III-10-45 MG9-T3
870	Structures	Strip, VSB32/6061 T6/6061 Al clad (0)	T6III-10-44-AL12-9
869	Structures	Strip VSB32/6061 T6/6061 Al clad (0)	T6III-10-43-AL12 8
868	Structures	Strip VSB32/6061 T6/6061 Al clad (0)	T6III-10 42-AL12 7
867	Structures	Strip Invar LR35, epsl meas, SG13, CTS-2	T6III-10-41-SS1-4
866	Structures	Strip Invar LR35, epsl meas, SG14	T6III-10-40-SS1-2
865	Structures	Strip VSB32/6061 T6/6061 Al clad (90) epsl meas SG15	T6III-10 39-AL15 13
864 18	Structures	Wire SiC/6061Al	T6III 10 38 44
864 17	Structures	Wire SiC/6061Al	T6III 10 38 43
864 16	Structures	Wire, SiC/6061Al	T6III-10-38-42
864 15	Structures	Wire, SiC/6061Al	T6III-10-38-41
864 14	Structures	Wire, SiC/6061Al	T6III 10 38-40
864 13	Structures	Wire, SiC/6061Al	T6III-10-38-39
864 12	Structures	Wire SiC/6061Al	T6III-10-38-38
864 11	Structures	Wire SiC/6061Al	T6III 10 38 37
864 1	Structures	Wire SiC/6061Al	T6III 10-38-36
864 09	Structures	Wire, SiC/6061Al	T6III-10-38-35
864 08	Structures	Wire, SiC/6061Al	T6III-10-38-34
864 07	Structures	Wire, SiC/6061Al	T6III-10-38-33
864 06	Structures	Wire, SiC/6061Al	T6III-10-38-32
864 05	Structures	Wire, SiC/6061Al	T6III-10-38-31
864 04	Structures	Wire, SiC/6061Al	T6III-10-38-30
864 03	Structures	Wire, SiC/6061Al	T6III 10-38-29
864 02	Structures	Wire SiC/6061Al	T6III-10-38-28
864 01	Structures	Wire, SiC/6061Al	T6III-10-38-27
863 04	Structures	Wire, P55 (10K) AZ91C	T6III-10 37-26
863 03	Structures	Wire, P55 (10K) AZ91C	T6III-10-37-25
863 02	Structures	Wire, P55 (10K) AZ91C	T6III-10-37-24
862 01	Structures	Wire, P100/AZ31B (Ti + B)	T6III-10-37-23
861	Structures	Strip, T300 tape/934 (0)	T6III-10-36-EP3-6
860	Structures	Strip, LAC 23-4688, elastomer	T6III-9-35-MPS-C-1
859	Structures	Strip, T300 tape/934 (0)	T6III-10-34-EP3-5
856	Structures	Strip, W 722(Graphite/Glass fabric)/P1700	T6III-10-31-PS2-6
855	Structures	Strip, W-722(Graphite/Glass fabric)/P1700	T6III-10-30-PS2-5
854	Structures	Strip, GY70/CE339, (0/45/90/135)S2	T6III-10-29-EP22-5
853	Structures	Strip, Invar LR35	T6III-10-28-SS1-9
850	Structures	Strip, P100/AZ91C/AZ61A (90)	T6III-10-25-MG9-T1
849	Structures	Strip, GY70/X-30 (0/45/90/135)4	T6III-10-24-EP1-4
848	Structures	Strip, GY70/201/2024 clad, (0)	T6III-10-23-AL5-12
847	Structures	Strip, GY70/201/2024 clad, (0)	T6III-10-22-AL5-11

Application	Description	Sample ID
Structures	Strip. GY70/201/2024 clad. (0)	T6III-10-21-AL5-5
Structures	Strip. GY70/201/2024 clad. (0)	T6III-10-20-AL3-5
Structures	Strip. GY70/201/2024 clad. (90)	T6III-10-19-AL4-4
Structures	Strip. GY70/201/2024 clad. (90)	T6III 10 18 AL4-3
Structures	Strip P55/6061/6061Al. (90) epsl meas SG16	T6III-10 17 AL15 4
Structures	Strip P55/6061/6061Al (0) epsl meas SG17 CTS1	T6III 10 16 AL14 11
Structures	Strip GY70/201/2024 clad (0) epsl meas SG18	T6III 10 15 AL3-12
Structures	Wire P100/AZ31B (T6 + B)	T6III 10 14 22
Structures	Wire. P100/AZ31B (T6 + B)	T6III 14-21
Structures	Wire P55 (10K) 6061Al	T6III 10 14 20
Structures	Wire. P55 (10K) 6061Al	T6III 10 14 19
Structures	Wire. P55 (10K) 6061Al	T6III 10 14 18
Structures	Wire. P55 (10K) 6061Al	T6III 10 14-17
Structures	Wire. P100/6061Al (T6 + B)	T6III-10-14-16
Structures	Wire. P100/6061Al (T6 + B)	T6III 10 14 15
Structures	Wire P100/6061Al (T6 + B)	T6III 10 14 14
Structures	Wire P100/6061Al (T6 + B)	T6III 10 14 13
Structures	Wire. T300/6061Al	T6III 10 14 12
Structures	Wire. T300/6061Al	T6III 10 13 11
Structures	Wire. P55/6061 (T6 + B)	T6III 10-13-10
Structures	Wire. P55/6061Al (T6 + B)	T6III-10-13 9
Structures	Wire. GY70 (81)/201	T6III-10-13 8
Structures	Wire. GY70 (81)/201	T6III-10-13 7
Structures	Wire. P55 (1xO2)/6061 Al (T6 + B)	T6III-10-13 6
Structures	Wire. P55 (1xO2)/6061 Al (T6 + B)	T6III-10 13 5
Structures	Wire. P100/AZ61A (T6 + B)	T6III-10 13 4
Structures	Wire. P100/AZ61A (T6 + B)	T6III-10-13-3
Structures	Wire. P100/AZ61A (T6 + B)	T6III-10-13-2
Structures	Wire. P100/AZ61A (T6 + B)	T6III-10 13 1
Structures	Strip. GY70/201/2024 clad. (0/±60°)s. epsilon meas. SG19	T6III-10 12-AL7-4
Structures	Strip. P100/EZ33A/AZ31B (6 ply). epsl meas. SG20	T6III-10-11 MG7-6
Structures	Strip. GY70/201/2024 clad (0/±60°)s	T6III-10-10-AL7-6
Structures	Strip. P75S/934	T6III-9-10-CM48-4
Structures	Strip. P75S/934	T6III-9-10 CM48-3
Structures	Strip. P75S/F593	T6III-9 9 CM47 6
Structures	Strip. P75S/F593	T6III-9-9-CM47-3
Structures	VS0054/EZ33A/AZ31B (0/±60°)s	T6III-10-9-MG7
Structures	Graphite/glass Celion 6000/borosilicate glass	T6III-10-7-GL2-2
Structures	HA-43 polyarylacetylene/ polyphenylquinoxyline blend/Low temp PAN composite	T3IV-16-90-D
Structures	HA-43 polyarylacetylene (PAA)/polyphenylquinoxyline (PPQ) blend/T300 carbon fabric composite	T3IV-16-89-C
Structures	Aerospace polyarylacetylene (PAA)/T300 carbon fabric composite	T3IV-16-88-B
Structures	HA-43 polyacylacetylene (PAA)/T300 carbon fabric composite	T3IV-16-87-A
Structures	Various materials, composites and metals	T3-V

DBA	Application	Description	Sample ID
795	Structures	Graphite/epoxy (conditioned) [T 300 unidirectional tape/Fiberite EA 934 epoxy resin (0°)]	T3IV-8 68-103
793	Structures	Graphite/polysulfone (T 300/ P 1700 polysulfone resin [0°/ 90°])	T3IV-8-67-25
761	Structures	E glass fabric/CE 339 [(0)16]T, 250°F	T3IV-9-35-CM39b
760	Structures	KEVLAR/epoxy K49 fabric/X904B [(0)16]T 350°F	T3IV-9-34-CM37b
759	Structures	HMF 176/34 fabric [(0)2/(90)2]T, 350°F	T3IV-9-33 CM41q
758	Structures	HMF 176/34 fabric [(0)16]T, 350°F	T3IV-9-32-CM22b
757	Structures	Celion 6000/E 788 [(0)4]T 350°F	T3IV-9-31 CM29b
756	Structures	T 50/E 263 [(0)16]T, 300°F	T3IV 9 30-CM43b
755	Structures	HMF 176/34 [(±45)]4S 350°F	T3IV-9-29-CM34a
754	Structures	T 50/PAN/E 788 [(0)16]T 350°F	T3IV 9 28 CM17b
753	Structures	T 50/PAN/X904B 10 [(0)16]T 350°F	T3IV 9 27 CM13a
752	Structures	T 50/PAN/934 [(0)16]T 350°F	T3IV 9 26 CM9b
751	Structures	T50/E 263 [(0)16]T 350°F	T3IV-9-25-CM5b
750	Structures	CY70/CE 339, [(0)16]T, 250°F	T3IV-9-24-CM1a
722	Structures	Celion 6000/E 788[+45/(-45)2/+45]4T, 350°F	T3III-9-70-CM31b
721	Structures	T 50/E 263 [+45/(-45)2/+45]4T, 300°F	T3III-9-69-CM45a
720	Structures	KEVLAR/epoxy K49 fabric/X904B [±45]4S 350°F	T3III 9 68 CM38a
719	Structures	T 50/PAN/E 788[+45/(-45)2/+45]4T 350°F	T3III-9 67 CM19d
718	Structures	T 50/PAN/X90[illegible]0][+45/(-45)2/+45]4T	T3III-9-66-CM15c
717	Structures	T 50/PAN/934[+45/(-45)2/+45]4T, 350°F	T3III-9-65-CM11a
716	Structures	T50/E 263[+45/(-45)2/+45]4T 350°F	T3III 9 64 CM7d
715	Structures	CY70/CE 339[+45/(-45)2/+45]4T, 250°F	T3III 9 63-CM3d
710	Structures	Silicon nitride, 2 layer sandwich (foam layer 0 45" thick, skin layer 0 03" thick)	T3III 8-58 S3
709	Structures	Silicon nitride, 2 layer sandwich (foam layer 0 45" thick, skin layer 0 03" thick)	T3III-8-57-S15
708	Structures	Graphite/epoxy (T 300 unidirectional tape/Fiberite EA934 epoxy resin [0°])	T3III-8-56-11
707	Structures	Graphite/polyimide (HTS 7 unidirectional tape/PMR 15 [0°])	T3III-8-55-31
706	Structures	Three dimensional quartz phenolic	T3III 3 54 II
705	Structures	Three dimensional quartz phenolic	T3III 3-53 II
704	Structures	Graphite polysulfone	T3III-3-52 IV
703	Structures	Graphite polysulfone	T3III-3-51-IV
702	Structures	Tape-wrapped carbon phenolic	T3III-3 50 I
701	Structures	Tape-wrapped carbon phenolic	T3III-3-49-I
700	Structures	Pyrolytic carbon, Pyro Carb 431	T3III-3-48-VII
699	Structures	Pyrolytic carbon, Pyro Carb 431	T3III-3-47-VII
698	Structures	Aluminum 6061 T6	T3III 3-46-V
697	Structures	Aluminum 6061 T6	T3III-3-45-V
694	Structures	Aluminum 2024, Al/Cu alloy	T3III-3-42-IIIa
693	Structures	Aluminum 2024, Al/Cu alloy	T3III-3-41-IIIa
692	Structures	Special carbon/tungsten-bearing resin	T3III-3-40-IV
691	Structures	Special carbon/tungsten-bearing resin	T3III-3-39-IV
690	Structures	Graphite polyimide	T3III-3-38-III
689	Structures	Graphite polyimide	T3III-3-37-III
640	Structures	Celion 6000/E 788[(0)2/(90)2]T, 350°F	T3III-3-28 CM32b

DB#	Application	Description	Sample ID
679	Structures	T50/F263 [(0)2/(90)2]T, 300°F	T3III-9-27-CM46a
678	Structures	HMS/3501-5A[(0)2/(90)2]T, 290°F	T3III-9-26-CM28b
677	Structures	T-50(PAN)/E788[(0)2/(90)2]T, 350°F	T3III-9-25-CM20a
676	Structures	T-50(PAN)/X904B-10[(0)2/(90)2]T, 350°F	T3III-9-24-CM16b
675	Structures	T 50(PAN)/934[(0)2/(90)2]T, 350°F	T3III 9 23 CM12b
670	Structures	Celion 6000/E7888[+45/(-45)2/+45]4T, 350°F	T3III 9 18 CM31a
669	Structures	T-50/F263 [+45/(-45)2/+45]4T, 300 F	T3III 9 17 CM45b
668	Structures	KEVLAR/epoxy; K49 fabric/X904B (±45)4S, 350 F	T3III 9 16 CM38b
667	Structures	T 50(PAN)/E788[+45/(-45)2/+45]4T, 350 F	T3III 9 15 CM19c
666	Structures	T-50(PAN)/X904B 10[+45/(-45)2/+45]4T 350 F	T3III 9 14 CM15b
665	Structures	T 50(PAN)/934[+45/(-45)2/+45]4T, 350 F	T3III 9 13 CM11d
664	Structures	T50/F263 [+45/(-45)2/+45]4T, 350 F	T3III 9 12 CM7c
663	Structures	GY70/CE-339(+45/-45/+45)4T, 250°F	T3III 9 11 CM3c
662	Structures	Celion 6000/E788[0/(90)2/0]4T, 350°F	T3III-9-10-CM30a
661	Structures	T50/F263 [0/(90)2/0]4T 250 F	T3III 9 9 CM44b
660	Structures	KEVLAR/epoxy K49 fabric/X904B [(0)2/(90)2]T, 350 F	T3III 9 8 CM42a
659	Structures	T 50(PAN)/E788[0/(90)2/0]4T, 350°F	T3III 9-7 CM18b
658	Structures	T 50(PAN)/X904B 10[0/(90)2/0]4T, 350 F	T3III 9 6 CM14b
657	Structures	T-50(PAN)/934[0/(90)2/0]4T, 350 F	T3III 9 5 CM10a
656	Structures	T50/F263 [(0)2/(90)2]T, 350°F	T3III 9 4 CM8b
655	Structures	T50/F263 [0/(90)2/0]4T, 350°F	T3III 9-3-CM6a
654	Structures	GY70/CE 339, [(0)2/(90)2]T, 250°F	T3III 9-2 CM4b
653	Structures	GY70/CE-339, [0/(90)2/0]4T, 250°F	T3III 9-1-CM2a
652	Structures	HA-43 polyarylacetylene (PAA)/polybenzimidazole fiber (PBI) composite	T3II 16-76 G
651	Structures	Polyphenylquinoxiline (PPQ) film on Al	T3II-18 75 Y
634	Structures	Composite (unknown fiber/matrix)	T3II-16-58-F
519	Structures	Silicon nitride, 2-layer sandwich (foam layer 0.45" thick, skin layer 0.03" thick)	L6VI-8-20 S5
518	Structures	Silicon nitride foam	L6VI-8 19-F1
517	Structures	Silicon nitride, 2-layer sandwich (foam layer 0.45" thick, skin layer 0.03" thick)	L6VI-8-18-S4
499	Structures	Strip, VSB32/6061-T6/6061 Al clad (0)	L6III-10 244-AL14-6
495	Structures	Strip, GY70/934 (0/45/90/135)S2	L6III-10-240-EP13-13
492	Structures	Strip, Graphite/LARC-160	L6III-10 237 PI2 7
491	Structures	Strip, Graphite/LARC-160	L6III-10-236-PI2-6
490	Structures	Strip, Graphite/LARC-16	L6III-10-235-PI2-5
489	Structures	Strip, T300 Fabric/P1700 (0, 90)	L6III-10-234 PS1-11
488	Structures	Strip, T300/V378A (16 ply)	L6III-10-233-PI5-9
487	Structures	Strip, T300/V378A (16 ply)	L6III 10 232-PI5-8
486	Structures	Strip, T300/V378A (16 ply)	L6III-10-231-PI5-7
485	Structures	Strip, P75S/CE-339 (0/45/90/135)S4	L6III-10-230-EP21-6
484	Structures	Strip, P75S/CE-339 (0/45/90/135)S4	L6III-10-229-EP21-5
483	Structures	Strip, SiC fibers/Al	L6III-10-228-AL32-2
482	Structures	Strip, SiC fibers/Al	L6III-10-227-AL32-1
481	Structures	Strip, SiC whiskers/2124	L6III-10-226-AL30-4

DBs	Application	Description	Sample ID
480	Structures	Strip. SiC whiskers/6061	L6III-10 225-AL31-2
479	Structures	Strip. GY70/CE-339 (0/45/90/135)S2	L6III-10-224-EP22-9
478	Structures	Strip. GY70/X 30 (0/45/90/135)4	L6III-10 223-EP2-4
477	Structures	Strip. GY70/X-30/Sn-In eut (0/45/90/135)4	L6III-10-222-EP2-3
476	Structures	Strip P75S/CE 339 (0/45/90/135)S4	L6III 10-221 EP21-15
475	Structures	Strip P100/AZ91C/AZ61A (0	L6III-10 220 MG9-L5
474	Structures	Strip. P100/AZ91C/AZ61A (0)	L6III 10-219-MG9-L3
473	Structures	Strip. VS0054EZ33A/AZ31B. (0)	L6III 10-216-MG3-15
470	Structures	Strip. VS0054/EZ33A/AZ31B clad. (90)	L6III 10 215 MG5-15
469	Structures	Strip. VS0054/EZ33A/AZ31B clad (90)	L6III 10-214 MG6 2
468	Structures	Strip. VS0054/EZ33A/AZ31B. (90)	L6III-10-213-MG6-8
464	Structures	Strip. graphite glass Celion 6000/borosilicate glass	L6III-10 209-GL3 2
463	Structures	Strip. T300 Fabric/P-1700 (0, 90)	L6III-10-208-PS1-6
462	Structures	Strip. T300 Fabric/P 1700 (0, 90)	L6III-10-207-PS1-5
461	Structures	Strip. GY70/X904B [(+45/(-45)2/+45]4T	L6III-10-206 EP7 3
460	Structures	Strip GY70/X904B. (0°/90/90/0)	L6III-10-205 EP6 3
459	Structures	Strip GY70/X904B. (0°)	L6III 10 204 EP5 3
458	Structures	Strip. HMS/3501 5A [(0)16]T	L6III 10-203 EP9 2
457	Structures	Strip HMS/3501-5A. [0/(90)2/0]4T	L6III-10 202 EP8-2
456	Structures	Strip. HMS/3501-5A [+45/(-45)2/+45]4T	L6III 10 201-EP11 2
455	Structures	Strip. T-300/5208	L6III-10 200 EP16 2
454	Structures	Strip. E-glass 120 Fabric/X904B. (0)	L6III-10-199-EP10-3
453	Structures	Strip. T300/2 mil-3M 113 viscoelatic tape/5208	L6III-10-198-EP17-1
452	Structures	Strip. GY70/934 (0/45/90/135)S2	L6III-10-197-EP13-6
451	Structures	Strip. VS0054/EZ33A/AZ31B clad (0)	L6III-10-196-MG5-8
450	Structures	Strip. VS0054/EZ33/AZ31BA clad (0)	L6III-10-195-MG3-3
449	Structures	Strip. VS0054/EZ33A/AZ31B. (0)	L6III-10-194-MG5-2
448	Structures	Strip. GY70/934 (0/45/90/135)S2	L6III-10-193-EP13-5
447	Structures	Strip. VS0054/EZ33A/AZ31B. (90)	L6III-10-192-MG4-2
446	Structures	Strip. P100/201/2024 Al (+20°/-20°)S	L6III-10 191-AL33-4
445	Structures	Strip. VS0054/EZ33A/AZ31B. (0)	L6III 10-190-MG3-2
444	Structures	Strip. P100/201/2024 Al (+20°/-20°)S	L6III-10-189-AL33 3
443	Structures	Strip. GY70/CE339 (0/45/90/135)S2	L6III-10-188-EP22-3
442	Structures	Strip. VSB32/6061-T6/6061 Al clad. (90)	L6III-10-187-AL15-9
441	Structures	Strip. VSB32/6061-T6/6061 Al clad. (90)	L6III-10-186-AL15-2
440	Structures	Strip. VSB32/6061-T6/6061 Al clad. (0)	L6III-10-185-AL14-15
439	Structures	Strip. VSB32/6061-T6/6061 Al clad. (0)	L6III-10-184-AL14-2
438	Structures	Strip. VSB32/6061-T6/6061 Al clad. (0)	L6III-10-183-AL14-9
437	Structures	Strip. Celion 6000/PMR-15. (0)	L6III-10-182-PI1-7
436	Structures	Strip. AS/3501-6 (0)	L6III-10-181-EP4-10
435	Structures	Strip. AS/3501-6 (0)	L6III-10-180-EP4-9
434	Structures	Strip. AS/3501-6 (0)	L6III-10-179-EP4-8
433	Structures	Strip. P75S/934. (0/45/90/135)S2	L6III-10-178-EP12-6

DBS	Application	Description	Sample ID
432	Structures	Strip. P75S/934. (0/45/90/135)S2	L6III-10-177-EP12-5
424	Structures	Strip. VS/0054/EZ33A/AZ31B clad (0°)	L6III-10-169-MG5-12
423	Structures	Strip. P100/AZ91C/AZ61A (+10°/-10°)S	L6III-10-168-MG10-2
422	Structures	Strip. P100/AZ91C/AZ61A (+10°/-10°)S	L6III-10-167-MG10 1
421	Structures	Strip. VSB32/6061-T6/6061 Al (0)	L6III-10-166-AL12-6
420	Structures	Strip. VSB32/6061-T6/6061 Al (0)	L6III-10-165-AL12-5
419	Structures	Strip. VSB32/6061-T6/6061 Al (0)	L6III-10-164-AL12-4
418	Structures	Strip. GY70/201/2024 clad. (90°)	L6III-10-163-AL6-10
417	Structures	Strip. GY70/201/2024 clad. (90°)	L6III-10-162 AL6-6
416	Structures	Strip. GY70/201/2024 clad. (90°)	L6III 10-161 AL6 2
413	Structures	Strip. T300 tape/934. (0)	L6III-10-158-EP3-9
412	Structures	Strip. T300 tape/934. (0)	L6III-10-157-EP3-8
411	Structures	Strip. T300 tape/934. (0)	L6III-10-156-EP3-7
408	Structures	Strip. W-722(Graphite/Glass fabric)/P1700	L6III 10-153-PS2-9
407	Structures	Strip. W 722(Graphite/Glass fabric)/P1700	L6III-10-152 PS2-8
406	Structures	Strip. W 722(Graphite/Glass fabric)/P1700	L6III 10 151 PS2 7
405	Structures	Strip. Invar LR35	L6III-10 150 SS1 8
404	Structures	Strip. GY70/CE339 (0/45/90/135)S2	L6III-10 149-EP22-11
402	Structures	Strip. GY70/X-30. (0/45/90/135)4	L6III 10 147 EP1 6
401	Structures	Strip. GY70/X-30. (0/45/90/135)4	L6III 10 146 EP1 5
400	Structures	Strip. GY70/201/2024 clad. (0°)	L6III 10-145-AL5 10
399	Structures	Strip. GY70/201/2024 clad. (0°)	L6III-10-144-AL5-4
398	Structures	Strip. GY70/201/2024 clad. (0°)	L6III 10-143-AL5-3
397	Structures	Strip. VSB32/6061-T6/6061 Al clad. (90)	L6III-10 142-AL15-10
396	Structures	Strip. GY70/201/2024 clad. (90°)	L6III-10-141-AL4-6
395	Structures	Strip. GY70/201/2024 clad. (90°)	L6III-10-140-AL4-5
394	Structures	Strip. GY70/201/2024 clad. (0°)	L6III-10-139-AL3-9
393	Structures	Strip. GY70/201/2024 clad. (0°)	L6III-10-138-AL3-8
391 04	Structures	Wire. SiC/6061 Al	L6III-10 136-14
391 03	Structures	Wire. SiC/6061 Al	L6III-10-136-13
391 02	Structures	Wire. SiC/6061 Al	L6III-10-136-12
391 01	Structures	Wire. SiC/6061 Al	L6III 10-136-11
390	Structures	Wire. SiC/6061 Al	L6III-10 135-10
389	Structures	Wire. P55 (10K)/ AZ91C	L6III-10-135-9
388	Structures	Wire. P100/AZ31B (Ti + B)	L6III-10-135-8
387	Structures	Wire. P55 (10K)/6061 Al	L6III-10-135-7
386	Structures	Wire. P100/6061 Al (Ti + B)	L6III-10-135-6
385	Structures	Wire. T300/6061Al	L6III-10 135-5
384	Structures	Wire. P55/6061Al (Ti + B)	L6III-10 135-4
383	Structures	Wire. GY70 (8T)/201	L6III-10-135-3
382	Structures	Wire. P55 (Ti02)/6061 Al (Ti + B)	L6III-10-135-2
381	Structures	Wire. P100/AZ61A (Ti + B)	L6III-10-135-1
380	Structures	Strip. P75S/F593. 102-270	L6III-9-134-C47-12

DS#	Application	Description	Sample ID
379	Structures	Strip. P75S/F593. 102-270	L6III-9-134-C47-9
378	Structures	Strip . P75S/934. 102-15A	L6III-9-133-C48-10
377	Structures	Strip . P75S/934. 102-15A	L6III-9-133-C48-7
376	Structures	Strip. GY70/201/2024 clad. (0/±60°)s	L6III-10-132-AL7-5
375	Structures	Strip. VS0054/EZ33A/AZ31B clad. (0/±60°)s	L6III-10 131 MG7 7
374	Structures	Mirror. GY70/201/2024 clad (0/±60°)s	L6III-10-130-AL8-2
367	Structures	Mirror. GY70/201/2024 clad(0/±60°)s	L6III-10-123-AL8 4
366	Structures	Strip. Celion 6000/polyimide	L6III-10-122-PI3
365	Structures	Strip. graphite/LARC 160	L6III-10-121 PI2 3
364	Structures	Strip. AS/3501-6 (0)	L6III-10-120-EP4-5
363	Structures	Strip. T300 Fabric/P1700. (0/90)	L6III-10-119-PS1-9
362	Structures	Strip. T300/V378A (0/45/90/135)S2	L6III 10 118 PI5 4
361	Structures	Strip. T300/V378A (0/45/90/135)S2	L6III 10 117 PI5 1
360	Structures	Strip. SiC fibers/Al	L6III-10-116-AL32-8
359	Structures	Strip P75S/CE339 (0/45/90/135)S4	L6III-10 115-EP21 2
358	Structures	Strip. P75S/CE399 (0/45/90/135)S4	L6III 10 114 EP21 1
357	Structures	Strip. P100/201/2024 (+20°/-20°)S	L6III-10-113-AL33 6
356	Structures	Strip. P100/AZ91C/AZ61A (+10°/-10°)S	L6III-10 112-MG10 7
355	Structures	Strip. P100/AZ91C/AZ61A (+10°/-10°)S	L6III 10 111 MG10 5
354	Structures	Strip. GY70/CE339 (0/45/90/135)S2	L6III-10-110-EP22-7
352	Structures	Strip. T300/P1700/Al flake	L6III-10 108 PS9
350	Structures	Strip. P100/201/2024 (+20°/-20°)S	L6III-10-106-AL33 2
349	Structures	Strip. Graphite/LARC-160. epsilon meas . SG1	L6III-10-105-PI2-1
348	Structures	Strip. T300/V378A. epsilon meas., SG2 (0/45/90/135)S2	L6III-10-104-PI5-2
347	Structures	Strip. T300/polyether sulfone. epsilon meas . SG3	L6III-10-103-PS11-1
346	Structures	Strip. GY70/X-30/Sn-In eut (0/45/90/135)4 epsilon meas . SG4	L6III-10-102 EP1 1
345	Structures	Strip. Celion 6000/PMR-15. epsilon meas . SG5 (0)	L6III-10-101-PI1-1
344	Structures	Strip. AS/3501-6(0) epsilon meas.. SG6	L6III-10-100-EP4-2
343	Structures	Strip. GY70/X-30/Sn-In eut.(0/45/90/135)4	L6III-10-99-EP2-2
342	Structures	Strip. GY70/X-30/Sn-In eut (0/45/90/135)4	L6III-10-98-EP2-1
341	Structures	Strip. graphite/glass: Celion 6000/borosilicate glass	L6III-10-97-GL3 1
340	Structures	Strip. SiC whiskers/2124 Al	L6III-10-96-AL30-2
339	Structures	Strip. SiC whiskers/6061 Al	L6III-10-95-AL31-1
338	Structures	Strip. VS0054/EZ33A/AZ31B clad. (90)	L6III-10-94-MG6-9
337	Structures	Strip. SiC fibers/Al	L6III-10-93-AL32-4
336	Structures	Strip. VS0054/EZ33A/AZ31B clad. (90)	L6III-10-92-MG6-1
335	Structures	Strip. T300 Fabric/P1700. (0,90)	L6III-10-91-PS1-3
334	Structures	Strip. GY70/CE339 (0/45/90/135)S2	L6III-10-90-EP22-1
333	Structures	Strip. Celion 6000/PMR-15(0)	L6III-10-89-PI1-4
332	Structures	Strip. Celion 6000/PMR-15 (0)	L6III-10-88-PI1-3
331	Structures	Strip. HMS/3501-5A. (0)	L6III-10-87-EP9-1
330	Structures	Strip. HMS/3501-5A. (0/90/90/0)4	L6III-10-86-EP8-1
329	Structures	Strip. GY70/X904B. [+45/(-45)2/+45]4	L6III-10-85-EP7-1

DB#	Application	Description	Sample ID
328	Structures	Strip, GY70/X904B, (0/90/90/0)	L6III-10-84-EP6-1
327	Structures	Strip, GY70/X904B, (0)	L6III-10-83-EP5-1
324	Structures	Strip, E-glass 120 Fabric/X904B, (0)	L6III-10-80 EP10-1
323	Structures	Strip, VSB32/6061-T6/6061 Al clad (0)	L6III-10-79-AL14-14
322	Structures	Strip, VSB32/6061 T6/6061 Al clad (0)	L6III 10 78 AL14-1
320	Structures	Strip GY70/934 (0/45/90/135)S2	L6III 10-76-EP13-2
319	Structures	Strip VS0054/EZ33A/AZ31B clad (0)	L6III 10 75 MG5-6
318	Structures	Strip, GY70/201/2024 clad (90)	L6III-10-74-AL6-9
317	Structures	Strip P100/AZ91C/AZ61A (90)	L6III-10-73 MG9 T6
316	Structures	Strip GY70/934 (0,45,90,135)S2	L6III-10 72-EP13 1
315	Structures	Strip, VS0054/EZ33A/AZ31B clad, (0)	L6III 10-71-MG3-1
314	Structures	Strip, P100/AZ91C/AZ61A (90)	L6III 10-70 MG9 T2
313	Structures	Strip VS0054/EZ33A/AZ31B clad, (0)	L6III-10-69-MG3 5
312	Structures	Strip, T300 Fabric/P1700, epsilon meas, SG7, [0/90]	L6III-10-68-PS1-1
311	Structures	Strip, W-722(Graphite/Glass fabric)/P1700, epsilon meas ,SG8	L6III 10 67 PS2-1
310	Structures	Strip, T300 tape/934 (0), epsilon meas, SG9, CTS 1	L6III-10-66-EP3 1
308	Structures	Strip, Invar LR35 epsilon meas., SG11, CTS 2	L6III-10-64-SS1 3
307	Structures	Strip, Invar LR35, epsilon meas, SG12	L6III-10 63 SS1 1
304	Structures	Strip, VSB32/6061 T6/6061 Al clad, (0)	L6III 10-60 AL12 3
303	Structures	Strip, VSB32/6061 T6/6061 Al clad, (0)	L6III-10-59-AL12-2
302	Structures	Strip, W-722(Graphite/Glass fabric)/P1700	L6III-10-58-PS2-3
301	Structures	Strip, AS/3501-6 (0)	L6III-10-57-EP4-4
300	Structures	Strip, P75S/934 (0/45/90/135)S2	L6III-10-56-EP12-2
299	Structures	Strip, P75S/934 (0/145/90/135)S2	L6III-10-55-EP12-1
298	Structures	Strip, graphite/glass Celion 6000/borosilicate glass	L6III-10-54-GL1-1
291	Structures	Strip, P100/AZ91C/AZ61A (0°)	L6III-10-47-MG9-L2
288	Structures	Strip, GY70/201/2024 clad (90)	L6III-10-44-AL6 5
287	Structures	Strip, GY70/201/2024 clad (90)	L6III-10-43-AL6-1
286	Structures	Strip, VSB32/5061-T6 Al/6061 clad (0)	L6III-10-42-AL12-1
285	Structures	Strip, VS0054/EZ33A/AZ31B (0), epsl meas, SG13 clad	L6III-10-41-MG5 23
284	Structures	Strip, VS0054/EZ33A/AZ31B (0), epsl meas, SG14, CTS3	L6III-10 40-MG3 17
283	Structures	Strip, VSB32/6061-T6 Al/6061 clad (90), epsl meas, SG15	L6III-10-39-AL15-8
282 18	Structures	Wire, SiC/6061 Al	L6III-10-38-44
282 17	Structures	Wire, SiC/6061 Al	L6III 10-38-43
282 16	Structures	Wire, SiC/6061 Al	L6III-10 38-42
282 15	Structures	Wire, SiC/6061 Al	L6III-10-38-41
282 14	Structures	Wire, SiC/6061 Al	L6III-10-38-40
282 13	Structures	Wire, SiC/6061 Al	L6III-10 38-39
282 12	Structures	Wire, SiC/6061 Al	L6III-10-38-38
282 11	Structures	Wire, SiC/6061 Al	L6III-10-38-37
282.1	Structures	Wire, SiC/6061 Al	L6III-10-38-36
282 09	Structures	Wire, SiC/6061 Al	L6III-10-38-35
282 08	Structures	Wire, SiC/6061 Al	L6III-10-38-34

DB#	Application	Description	Sample ID
282 07	Structures	Wire, SiC/6061 Al	L6III-10-38-33
282 06	Structures	Wire, SiC/6061 Al	L6III-10-38-32
282 05	Structures	Wire, SiC/6061 Al	L6III-10-38-31
282 04	Structures	Wire, SiC/6061 Al	L6III-10-38-30
282 03	Structures	Wire, SiC/6061 Al	L6III-10-38 29
282 02	Structures	Wire, SiC/6061 Al	L6III-10 38-28
282 01	Structures	Wire, SiC/6061 Al	L6III 10-38 27
281 03	Structures	Wire, P55 (10K)/AZ91C	L6III 10-37 26
281 02	Structures	Wire, P55 (10K)/AZ91C	L6III-10-37 25
281 01	Structures	Wire, P55 (10K)/AZ91C	L6III 10 37 24
280	Structures	Wire, P100/AZ31B (Ti + B)	L6III 10 37-23
279	Structures	Strip, P100/AZ91C/AZ61A, (0)	L6III 10-36 MG9 L1
278	Structures	Strip, T300 tape/934, (0)	L6III-10-35-EP3-4
277	Structures	Strip, T300 tape/934, (0)	L6III 10-34-EP3-3
274	Structures	Strip, W-722 (Graphite/Glass fabric)/P1700	L6III 10 31 PS2-4
271	Structures	Strip, Invar LR-35	L6III-10-28-SS1 7
268	Structures	Strip GY70/201/2024 clad, (0) (1 ply)	L6III-10 25 AL5 2
267	Structures	Strip, GY70/X-30 [0/45/90/135]4	L6III 10 24 EP1 2
266	Structures	Strip, GY70/201/2024 clad, (0), (1 ply)	L6III 10 23 AL5 1
265	Structures	Strip, GY70/201/2024 clad, (0), (1 ply)	L6III-10-22 AL5 9
264	Structures	Strip, GY70/201/2024 clad, (90°)	L6III-10-21 AL4 2
263	Structures	Strip, GY70/201/2024 clad, (90°)	L6III-10-20-AL4 1
262	Structures	Strip, GY70/201/2024 clad, (0), (1 ply)	L6III-10-19-AL3 4
261	Structures	Strip, GY70/201/2024 clad, (0), (1 ply)	L6III-10-18-AL3 3
260	Structures	Strip, VSB32/6061-T6/6061 Al clad, (90°), epsl meas, SG16	L6III-10-17 AL15-1
259	Structures	Strip, VSB32/6061-T6/6061 Al clad (0) (1 ply), SG17, CTS4, epsl meas	L6III-10-16-AL14-10
258	Structures	Strip, GY70/201/2024 clad (1 ply) (0), epsl meas, SG18	L6III 10-15 AL3 2
257 02	Structures	Wire, P100/AZ31B (Ti + B)	L6III-10-14-22
257 01	Structures	Wire, P100/AZ31B (Ti + B)	L6III-10 14 21
256 04	Structures	Wire, P55(10K)6061Al	L6III-10-14-20
256 03	Structures	Wire, P55(10K)6061Al	L6III-10-14-19
256 02	Structures	Wire, P55(10K)6061Al	L6III-10-14 18
256 01	Structures	Wire, P55(10K)6061Al	L6III-10-14-17
255 04	Structures	Wire, P100/6061Al (Ti + B)	L6III-10-14-16
255 03	Structures	Wire, P100/6061Al (Ti + B)	L6III-10 14-15
255 02	Structures	Wire, P100/6061Al (Ti + B)	L6III-10-14-14
255 01	Structures	Wire, P100/6061Al (Ti + B)	L6III-10-14-13
254	Structures	Wire, T300/6061Al	L6III-10-14-12
253	Structures	Wire, T300/6061 Al	L6III-10-13-11
252 02	Structures	Wire, P55/6061Al (Ti + B)	L6III-10-13-10
252 01	Structures	Wire, P55/6061Al (Ti + B)	L6III-10-13-9
251 02	Structures	Wire, GY70(8T)/201	L6III-10-13-8
251 01	Structures	Wire, GY70(8T)/201	L6III-10-13-7

DB#	Application	Description	Sample ID
250 02	Structures	Wire, P55(TiO2)/6061Al (Ti + B)	L6III-10-13-6
250 01	Structures	Wire, P55(TiO2)/6061Al (Ti + B)	L6III-10-13-5
249 04	Structures	Wire, P100/AZ61A (Ti + B)	L6III-10-13-4
249 03	Structures	Wire, P100/AZ61A (Ti + B)	L6III-10-13-3
249 02	Structures	Wire, P100/AZ61A (Ti + B)	L6III-10-13-2
249 01	Structures	Wire, P100/AZ61A (Ti + B)	L6III-10-13-1
248	Structures	Strip, GY70/201/2024 (6 ply) clad SG19 [0 ± 60°]s, epsl meas	L6III-10-12-AL7-1
247	Structures	Strip, VS0054/EZ33A/AZ31B clad, [0 ± 60°]s (6 ply) epsl meas, SG 20	L6III-10-11-MG7-1
246	Structures	Strip, GY70/201/2024 clad [0 ± 60°]s (6 ply)	L6III-10-10-AL7-2
245	Structures	Strip, VS0054/EZ33A/AZ31B clad [0 ± 60]s (6 ply)	L6III-10-9-MG7-3
236	Structures	HA-43 polyarylacetylene (PAA)/polyphenylquinoxyline (PPO) blend/T300 carbon fabric composite	L3IV-16-74-C
235	Structures	Aerospace polyarylacetylene (PAA)/T300 carbon fabric composite	L3IV-16-73-B
234	Structures	HA-43 polyarylacetylene (PAA)/T300 carbon fabric composite	L3IV-16-72-A
233	Structures	HA-43 polyarylacetylene/ polyphenylquinoxyline blend/Low temp PAN composite	L3IV-16-71-D
230	Structures	Graphite/epoxy (conditioned) [T-300 unidirectional tape/Fiberite EA 934 epoxy resin [0°])	L3IV-8-68-12
229	Structures	Graphite/polysulfone [T 300/ P 1700 polysulfone resin [0°/ 90°]]	L3IV-8-67-24
197	Structures	E glass fabric/CE-339 ((0)16)T, 250°F	L3IV-9-35-CM39
196	Structures	KEVLAR/epoxy K49 fabric/X904B ((0)16)T 350 F	L3IV-9-34-CM37a
195	Structures	HMF 176/34 fabric ((0)2(90)2)T, 350°F	L3IV-9-33-CM41b
194	Structures	HMF176/34 fabric ((0)16)T, 350°F	L3IV-9-32-CM33a
193	Structures	Celion 6000/E788 ((0)16)T, 350°F	L3IV-9-31-CM29a
192	Structures	T-50/F263 ((0)4)T, 300°F	L3IV-9-30-CM43a
191	Structures	HMF 176/34 fabric (+45)4S, 350°F	L3IV-9-29-CM34c
190	Structures	T-50 (PAN)/E788 ((0)16)T, 350°F	L3IV-9-28-CM17a
189	Structures	T-50(PAN)/X904B-10 ((0)16)T, 350°F	L3IV-9-27-CM13b
188	Structures	T 50(PAN)/934 ((0)16)T, 350°F	L3IV-9-26-CM9a
187	Structures	T 50/F263 ((0)16)T, 350°F	L3IV-9-25-CM5a
186	Structures	GY70/CE-339, ((0)16)T, 250°F	L3IV-9-24-CM1b
162	Structures	Composite (unknown fiber/matrix)	L3III-16-75-E
157	Structures	Celion 6000/E788(+45/(-45)2/+45)4T, 350°F	L3III-9-70-CM31c
156	Structures	T 50/F263 (+45/(-45)2/+45)4T, 300°F	L3III-9-69-CM45c
155	Structures	KEVLAR/epoxy K49 fabric/X904B (+45)4S, 350°F	L3III-9-68-CM38d
154	Structures	T-50(PAN)/E788(+45/(-45)2)+05)4T, 350°F	L3III-9-67-CM19b
153	Structures	T-50(PAN)/X904B-10(+45/(-45)2/+45)4T, 350°F	L3III-9-66-CM15a
152	Structures	T 50(PAN)/934(+45/(-45)2/+45)4T, 350°F	L3III-9-65-CM11b
151	Structures	T-50/F263(+45/(-45)2/45)4T	L3III-9-64-CM7b
150	Structures	GY70/CE-339/(+45/(-45)2/+45)4T, 250°F	L3III-9-63-CM3b
145	Structures	Silicon nitride, 2-layer sandwich (foam layer 0.45" thick, skin layer 0.03" thick)	L3III-8-58-S2
144	Structures	Silicon nitride, 2-layer sandwich (foam layer 0.45" thick, skin layer 0.03" thick)	L3III-8-57-S12
143	Structures	Graphite/epoxy (T-300 unidirectional tape/Fiberite EA934 epoxy resin [0°])	L3III-8-56-10
142	Structures	Graphite/polyimide (HTS-2 unidirectional tape/PMR 15 [0°])	L3III-8-55-30
141	Structures	Three-dimensional quartz phenolic	L3III-3-54-II
140	Structures	Three-dimensional quartz phenolic	L3III-3-53-II

DB#	Application	Description	Sample ID
139	Structures	Graphite polysulfone	L3III-3-52-IV
138	Structures	Graphite polysulfone	L3III-3-51-IV
137	Structures	Tape-wrapped carbon phenolic	L3III 3-50-I
136	Structures	Tape-wrapped carbon phenolic	L3III-3-49-I
135	Structures	Pyrolitic carbon, Pyro-Carb 431	L3III-3 48-VII
134	Structures	Pyrolitic carbon, Pyro Carb 431	L3III-3 47-VII
133	Structures	Aluminum 6061 T6	L3III 3-46 V
132	Structures	Aluminum 6061 T6	L3III-3 45 V
129	Structures	Aluminum 2024, Al/Cu alloy	L3III-3-42 IIIa
128	Structures	Aluminum 2024, Al/Cu alloy	L3III 3 41-IIIa
127	Structures	Special carbon/tungsten-bearing resin	L3III 3 40-VI
126	Structures	Special carbon/tungsten bearing resin	L3III-3 39 VI
125	Structures	Graphite polyimide	L3III-3-38-III
124	Structures	Graphite polyimide	L3III-3-37-III
115	Structures	Celion 6000/E788/((0)2/(90)2)T, 350°F	L3III 9 28 CM32
114	Structures	T50/F263 ((0)2/(90)2)T, 300°F	L3III-9-27 CM46
113	Structures	HMS/3501-5A((0)2/(90)2)T 290°F	L3III-9 26-CM28
112	Structures	T-50(PAN)/E788((0)2/(90)2)T, 350 F	L3III 9 25-CM20
111	Structures	T 50(PAN)/X904B-10((0)2/(90)2)T, 350 F	L3III 9 24-CM16
110	Structures	T 50(PAN)/934 ((0)2/(90)2)T, 350°F	L3III-9-23-CM12
105	Structures	Celion 6000/E788(+45/(-45)2/+45)4T, 350°F	L3III-9-18-CM31d
104	Structures	T 50/F263 (+45/(-45)2/+45)4T, 300°F	L3III-9-17 CM45d
103	Structures	KEVLAR/epoxy 49 fabric/X904B (±45)4S, 350°F	L3III-9-16-CM38c
102	Structures	T-50(PAN)/E788(+45/(-45)2/+45)4T, 350°F	L3III-9 15 CM19a
101	Structures	T-50(PAN)/X904B-10(+45/(-45)2/+45)4T, 350°F	L3III-9-14-CM15d
100	Structures	T-50 (PAN)/934/+45/(-45)2/+45)4T, 350°F	L3III-9 13 CM11c
99	Structures	T50/F263 (+45/(-45)2/+45)4T	L3III-9 12 CM7a
98	Structures	GY70/CE 399 (+45/(-45)2/+45)4T,250°F	L3III-9-11-CM3a
97	Structures	Celion 6000/E788(0/(90)2/0)4T, 350°F	L3III-9-10-CM30b
96	Structures	T 50/F263 (0/(90)2/0)4T, 300°F	L3III-9-9-CM44a
95	S uctures	Kevlar/epoxy K49 fabric/X904B ((0)2/(90)2)T, 350 F	L3III-9-8-CM42b
94	Structures	T-50(PAN)/E788(O/(9O)2/O)4T, 350°F	L3III-9-7-CM18a
93	Structures	T-50 (PAN)/X904B 10(90(2)/0) 4T, 350°F	L3III 9-6-CM14a
92	Structures	T-50 (PAN)/934(0/(90)2/0)4T, 350°F	L3III-9-5-CM10c
91	Structures	T50/F263 ((0)2/(90)2)T, 350°F	L3III-9-4-CM8a
90	Structures	T50/F263 (0/(90)2/0)4T, 350°F	L3III-9-3-CM6b
89	Structures	GY70/CE 339, ((0)2/(90)2)T, 250°F	L3III-9-2-CM4a
88	Structures	GY70/CE-399, (0/(90)2/0)4T, 250 °F	L3III-9-1-CM2b
83	Structures	Polyphenylquinoxaline (PPQ) film on Al	L3II-18-75-J
792	Structures, adhesive bond	Composite to composite (T-300/934) adhesive joint/Hysol EA 9628 epoxy	T3IV-8-66-11
791	Structures, adhesive bond	Composite to composite (T-300/934) adhesive joint/Hysol EA 9628 epoxy	T3IV-8-65-9
790	Structures, adhesive bond	Composite to composite (T-300/934) adhesive joint/Hysol EA 9628 epoxy	T3IV-8-64-7
726	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	T3III-9 74-AB2-14

DB#	Application	Description	Sample ID
725	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	T3III-9-73-AB2-13
724	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	T3III-9-72-AB2-12
723	Structures, adhesive bond	HMF 330C/934-2024 HMF 330C/934 (9628), 250°F	T3III-9-71-AB2-11
674	Structures adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	T3III-9-22-AB2-9
672	Structures adhesive bond	HMF 330C/934 2024-HMF 330C/934 (9628), 250°F	T3III 9 20 AB2 5
671	Structures adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	T3III 9 19 AB2 1
228	Structures adhesive bond	Composite to composite (T-300/934) adhesive joint/Hysol EA 9628 epoxy	L3IV 8 66-12
227	Structures adhesive bond	Composite to composite (T 300/934) adhesive joint/Hysol EA 9628 epoxy	L3IV 8 65 10
226	Structures adhesive bond	Composite to composite (T 300/934) adhesive joint/Hysol EA 9628 epoxy	L3IV 8 64 8
161	Structures adhesive bond	HMF 220C/934 2024-HMF 330C/934 (9628), 250°F	L3III-9-74-AB1 14
160	Structures, adhesive bond	HMF 330C/934 2024 HMF 330C/934 (9628), 250°F	L3III 9 73-AB1 13
159	Structures, adhesive bond	HMF 330C/934-2024 HMF 330C/934 (9628), 250°F	L3III 9 72-AB1 12
158	Structures, adhesive bond	HMF 330C/934-2024 HMF 330C/934 (9628), 250 F	L3III-9-71-AB1 11
109	Structures, adhesive bond	HMF 330C/934-2024 HMF 330C/934 (9628), 250°F	L3III-9-22-AB1-9
108	Structures adhesive bond	HMF 330C/934 2024-HMF 330C/934 (9628), 250 F	L3III-9 21 AB1 7
107	Structures adhesive bond	HMF 330C/934 2024 HMF 330C/934 (9628) 250°F	L3III-9 20 AB1 5
106	Structures adhesive bond	HMF 330C/934 2024 HMF 300C/934 (9628), 250°F	L3III-9-19 AB1 2
1105 25	Structures insulation	Graphite polyimide/Astroquartz 550-BN fabric	T6VI 13 20 25A
1105 23	Structures, insulation	ECCOFOAM OG	T6VI 13 20 23A
1105 22	Structures, insulation	Graphite polyimide/capacitive grid material/ceramic standoff/Astroquartz 581	T6VI-13 20 22A
1105 21	Structures, insulation	Graphite polyimide/Fiberfrax paper/Astroquartz 550/Astroquartz 581	T6VI-13-20 21A
824	Structures, optics	Mirror, GY70/201/2024 clad (0/±60°)s	T6III 10-8-AL8-8
1070	Structures, thermal control	Strip, T300/polyether sulfone/TiO2 coating	T6III-10-220-PS14 2
1016	Structures, thermal control	Strip, W-727 (Graphite/Glass fabric)/P1700/ZnO coating	T6III-10-175-PS4-12
1015	Structures, thermal control	Strip, W-722 (Graphite/Glass fabric)/P1700/ZnO coating	T6III-10 174-PS4-11
1014	Structures, thermal control	Rivoted lap W-722 (Graphite/Glass fabric)/P1700, ZnO coating	T6III-10-173-PS6-8
1012	Structures thermal control	Strip, W 722 (Graphite/Glass fabric)/P1700/ZnO coating	T6III-10-171 PS4 10
1011	Structures, thermal control	Strip, W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	T6III 10 170-PS3-12
996	Structures, thermal control	Strip, W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	T6III 10-155-PS3-11
995	Structures, thermal control	Strip, W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	T6III-10-154-PS3 10
989	Structures, thermal control	Rivoted lap, W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	T6III-10-148 PS5 8
933	Structures, thermal control	Strip, T300/polyether sulfone/TiO2 coating	T6III-10-107-PS14-1
925	Structures, thermal control	Strip, T300/polyether sulfone/ZnO coating	T6III 10-99-PS13-2
924	Structures, thermal control	Strip, T300/polyether sulfone/ZnO coating	T6III-10-98-PS13-1
908	Structures thermal control	Rivoted lap, W-722 Graphite/Glass fabric/P1700/ZnO coating	T6III 10 82-PS6-6
907	Structures, thermal control	Rivoted lap, W-722 Graphite/Glass fabric/P1700/ZnO coating	T6III-10 81-PS6 5
904	Structures, thermal control	Strip, T300 fiber/5208/W-Al flake coating	T6III-10-78-EP14-1
903	Structures, thermal control	Strip, T300 fiber/5208/ZnO coating	T6III-10-77-EP15-2
879	Structures, thermal control	Strip, W-722(Graphite/Glass fabric)/P1700/ZnO coating	T6III-10-53-PS4-6
878	Structures, thermal control	Strip, W-722(Graphite/Glass fabric)/P1700/ZnO coating	T6III-10-52-PS4-5
877	Structures, thermal control	Rivoted lap W-722(Graphite/Glass fabric)/P1700/TiO2 coating	T6III-10-51-PS6-2
876	Structures, thermal control	Rivoted lap W-722(Graphite/Glass fabric)/P1700/TiO2 coating	T6III-10-50-PS5-6
875	Structures, thermal control	Strip, W-722(Graphite/Glass fabric)/P1700/ZnO coating	T6III-10-49-PS4-2

DB#	Application	Description	Sample ID
874	Structures, thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	T6III-10-48-PS3-6
858	Structures, thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	T6III-10-33-PS3-4
857	Structures, thermal control	Strip, W-722(Graphite/Glass fabric)/P1700/TiO2 coating	T6III-10-32 PS3 3
852	Structures, thermal control	Rivoted lap, 722(Graphite/Glass weave)/P1700/TiO2 coating	T6III-10-27-PS5-4
851	Structures thermal control	Rivoted lap, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	T6III-10-26 PS5 3
592	Structures thermal control	Polyphenylsulfone R 5000 10 mil Union Carbide	T3II 5 16 C16
591	Structures thermal control	Polycarbonate 5 mil	T3II 5 15 C15
590	Structures, thermal control	Telzel 500AE, 5 mil	T3II 5 14 C14
589	Structures, thermal control	Nylon 6/6, 5 mil	T3II 5 13 C13
479	Structures thermal control	Strip, W 722(Graphite/Glass fabric)-P1700/ZnO coating	L6III 10 174 PS4 8
478	Structures thermal control	Rivoted lap W 722(Graphite/Glass fabric)/P1700/ZnO coating	L6III 10 173 PS6 7
477	Structures thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/ZnO coating	L6III 10 172 PS4 9
476	Structures, thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/ZnO coating	L6III 10 171 PS4 7
475	Structures thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	L6III 10 170 PS3 9
410	Structures thermal control	Strip W 722(Graphite/Glass fabric)/P1700/TiO2 coating	L6III 10 155 PS3 8
409	Structures, thermal control	Strip W 722(Graphite/Glass fabric)/P1700/TiO2 coating	L6III 10 154 PS3 7
403	Structures thermal control	Rivoted lap W 722(Graphite/Glass fabric)/P1700/TiO2 coating	L6III 10 148 PS5 7
353	Structures thermal control	Strip, T300/P1700/ZnO coating	L6III 10 109 PS10
351	Structures, thermal control	Strip, T300/P1700/TiO2 coating	L6III 10 107 PS8
326	Structures, thermal control	Rivoted lap, 722(Graphite/Glass weave) P1700/ZnO coating	L6III 10 82 PS6 4
325	Structures, thermal control	Rivoted lap, 722(Graphite/Glass fabric) P1700/ZnO coating	L6III 10-81 PS6-3
321	Structures, thermal control	Strip, T300/5208/ZnO coating	L6III 10-77 EP15 1
309	Structures, thermal control	Strip, T300/polysulfone/TiO2 coating, epsilon meas., SG10	L6III 10 65 PS7
297	Structures thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/ZnO coating	L6III-10 53 PS4 4
296	Structures, thermal control	Strip, W-722(Graphite/Glass fabric)/P1700/ZnO coating	L6III 10 52 PS4-3
295	Structures, thermal control	Rivoted lap W 722Graphite/Glass fabric)/P1700/ZnO coatu.	L6III 10 51 PS6 1
294	Structures, thermal control	Rivoted lap W 722(Graphite/Glass fabric)/P1700/TiO2 coating	L6III-10-50-PS5-5
293	Structures, thermal control	Strip, W-722(Graphite/Glass fabric) *700/ZnO coating	L6III-10-49-PS4-1
292	Structures, thermal control	Strip, W-722(Graphite/Glass fabric)/P1700/TiO2 coating	L6III-10 48-PS3-5
276	Structures, thermal control	Strip, W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	L6III-10-33-PS3-2
275	Structures, thermal control	Strip, W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	L6III 10-32 PS3 1
270	Structures, thermal control	Rivoted lap, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	L6III-10-27-PS5-2
269	Structures, thermal control	Rivoted lap, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	L6III-10-26-PS5-1
236 5	Structures, thermal control	Composite panel graphite/934 [O2, ±45, O2, ±45, 90, 0]s, with 3 coatings A276, Z306, S13GLO	L3-V
24	Structures, thermal control	Polyphenylsulfone R-5000, 10 mil, Union Carbide	L3II 5-16 C16
23	Structures, thermal control	Polycarbonate, 5 mil	L3II 5-15 C15
22	Structures, thermal control	Telzel 500AE, 5 mil	L3II-5-14-C14
21	Structures, thermal control	Nylon 6/6, 5 mil	L3II-5-13-C13
673	Structures adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	T3III-9-21-AB2-7
1105 24	Thermal control	Flexible dielectric stack dielectric stack/Kapton	T6VI-13-20-24A
1105 09	Thermal control	Radiator coating BaF2/Ag/Al	T6VI-13-20-09A
1105 08	Thermal control	Radiator coating Boron nitride, grade HP	T6VI-13-20-08A
1105 06	Thermal control	Flexible reflector Al2O3 (0 3255 μm)/Ag (0 2μ m)/ Al2O3 (0 0323 μm)/ Al foil	T6VI 13 20 06A

DBS	Application	Description	Sample ID
1105 05	Thermal control	Flexible reflector Al2O3(0 3255 μm)/ Ag(0 2μm)/Al2O3(0 0323 μm)/ 2 mil Kapton	T6VI-13-20-05A
1105 04	Thermal control	Flat solar reflector Barrier anodized Al	T6VI-13-20-04A
1105 03	Thermal control	Flat solar reflector Leafing Al paint (polysilicate binder)/ Al	T6VI-13-20-03A
1105 01	Thermal control	Flexible reflector Dionon silver Al	T6VI-13-20 01A
1099	Thermal control	Teflon FEP/Ag/Inconel, 5 mil Sheldahl	T6VI 5-14 A8
1098	Thermal control	White paint Z93 IITRI	T6VI-5 13 A13
1097	Thermal control	White paint YB 71 IITRI	T6VI-5 12 A15
1096	Thermal control	White paint Eu2O3/RTV 602, ML101, Air Force Materials Laboratory	T6VI 5 11 A17
1095	Thermal control	White paint PV100 TiO2/silicone resin, ML101, Air Force Materials Laboratory	T6VI 5 10 A19
1094	Thermal control	White paint DC92 007 TiO2/RTV 3140 Rockwell Int	T6VI-5 9-A21
1093	Thermal control	Quartz fabric 581 (Astroquartz)/Teflon FEP/Al General Electric	T6VI-5 8 A1
1092	Thermal control	Teflon FEP/Ag/Inconel, 2 mil Sheldahl	T6VI 5 7 A7
1091	Thermal control	Kapton/Al, 5 mil, Sheldahl	T6VI 5 6 A11
1090	Thermal control	White paint S13GLO IITRI	T6VI-5 5 A14
1088	Thermal control	White paint, NS 43G NASA Goddard Space Flight Center	T6VI 5 3 A16
1087	Thermal control	White paint alpha Al2O3/RTV 602 MI 101 Air Force Materials Laboratory	T6VI 5 2 A18
1086	Thermal control	White paint TiO2/RTV 602, MI 101, Air Force Materials Laboratory	T6VI-5 1 A20
954	Thermal control	Black oxide coating on 304 stainless steel substrate	T6III-9 128 TC19 4
952	Thermal control	GE SHC 1010 coating on Al substrate	T6III 9 126 TC17 5
951	Thermal control	Vestar coating on Al substrate	T6III 9 125 TC16 8
950	Thermal control	JB 1 black coating on Ta substrate	T6III-9-124 TC15 29
949	Thermal control	LMSC modified Cotronics 931 coating on Ta substrate	T6III 9 123-TC14-9
822	Thermal control	Black oxide coating on 304 stainless steel substrate	T6III-9 6-TC19 3
820	Thermal control	GE SHC 1010 coating on Al substrate	T6III-9-4-TC17 3
819	Thermal control	Vestar coating on Al substrate	T6III-9-3-TC16-7
818	Thermal control	JB-1 black coating on Ta substrate	T6III 9 2 TC15 25
817	Thermal control	LMSC modified Cotronics 931 coating on Ta substrate	T6III-9-1 TC14 6
795	Thermal control	Rhodium coated glassy carbon substrate	T3IV-15-69-Z2
787	Thermal control	Teflon FEP polymer coating Sprayon 7075	T3IV-9-61-TC1
786	Thermal control	Teflon FEP polymer coating Sprayon 7075	T3IV-9 60-TC1
785	Thermal control	Black silicone high temperature paint Sperex SP 102	T3IV-9 59-TC4
784	Thermal control	Black silicone high temperature paint Sperex SP 102	T3IV-9 58-TC4
783	Thermal control	Ceramic coating black HS 4 on LI 900	T3IV-9-57 TC8
782	Thermal control	Ceramic coating black HS 4 on LI 900	T3IV 9-56-TC8
781	Thermal control	Ceramic coating black borated silica coating	T3IV-9-55-TC7
780	Thermal control	Ceramic coating black borated silica coating	T3IV 9 54 TC7
779	Thermal control	Ceramic coating white borated silica	T3IV-9 53 TC6
778	Thermal control	Ceramic coating white borated silica	T3IV-9-52-TC6
777	Thermal control	White silicone high temperature paint Sperex AP 101	T3IV-9-51-TC3
776	Thermal control	White silicone high temperature paint Sperex AP 101	T3IV-9-50-TC3
773	Thermal control	Teflon FEP polymer coating Sprayon 7075	T3IV-9-47-TC5
772	Thermal control	Teflon FEP polymer coating Sprayon 7075	T3IV-9-46-TC5
771	Thermal control	Polyurethane black paint, Chemglaze Z306	T3IV-9-45-TC13

DB#	Application	Description	Sample ID
770	Thermal control	Polyurethane black paint, Chemglaze Z306	T3IV-9-44-TC13
769	Thermal control	Polyurethane white paint, Chemglaze A276/II	T3IV-9-43-TC12
768	Thermal control	Polyurethane white paint, Chemglaze A276/II	T3IV-9-42-TC12
767	Thermal control	Coated molybdenum foil/ Si3N4	T3IV-9-41-TC11
766	Thermal control	Coated molybdenum foil/ Si3N4	T3IV 9 40 TC11
765	Thermal control	Coated molybdenum foil/ P238 fiber (Al2O3)	T3IV 9-39-TC10
764	Thermal control	Coated molybdenum foil/ P238 fiber (Al2O3)	T3IV-9-38-TC10
763	Thermal control	Coated molybdenum foil/ 4μ SiO2	T3IV-9-37-TC9
762	Thermal control	Coated molybdenum foil/ 4μ SiO2	T3IV 9 36-TC9
744	Thermal control	White thermal control paint S13GLO/6061 Al, IITRI	T3IV 18 18
743	Thermal control	White thermal control paint, S13GLO/6061 Al, IITRI	T3IV-18 17
649	Thermal control	Black thermal control paint D111/Al, IITRI	T3II 18-73 W
648	Thermal control	White thermal control paint, YB 71/Al, IITRI	T3II-18 72-V1
647	Thermal control	Sputtered black rhodium coating on polished molybdenum substrate	T3II 15 71 U1
646	Thermal control	Sputtered black iridium coating on polished molybdenum substrate	T3II 15 70 T1
645	Thermal control	Sputtered black rhodium coating on polished molybdenum substrate	T3II 15-69 S1
644	Thermal control	Polished molybdenum mirror	T3II 15 68 R1
643	Thermal control	Iridium foil bonded with DC 6 1104 to aluminum substrate	T3II 15 67-O1
642	Thermal control	Rhodium foil bonded with DC 6 1104 to aluminum substrate	T3II 15-66-P1
620	Thermal control	White paint DC92 007 TiO2/RTV 3140, Rockwell Int	T3II 5 44 A22
619	Thermal control	White paint DC92 007 TiO2/RTV 3140, Rockwell Int	T3II 5 43-A21
618	Thermal control	White paint TiO2/RTV 602, ML101 Air Force Materials Laboratory	T3II-5 42-A20
617	Thermal control	White paint, PV100 TiO2/silicone resin, ML101, Air Force Materials Laboratory	T3II-5-41-A19
616	Thermal control	White paint, alpha Al2O3/RTV 602, ML101, Air Force Materials Laboratory	T3II-5-40-A18
611	Thermal control	White paint, Eu2O3/RTV 602, ML101, Air Force Materials Laboratory	T3II-5-35-A17
610	Thermal control	White paint, NS 43G, NASA Goddard Space Flight Center	T3II-5-34-A16
609	Thermal control	White paint YB 71, IITRI	T3II-5-33 A15
608	Thermal control	White paint, S13GLO, IITRI	T3II 5 32-A14
607	Thermal control	White paint, Z93 IITRI	T3II-5-31-A13
606	Thermal control	In2O3/KaptonAl, 5 mil, General Electric	T3II-5 30-A12
605	Thermal control	KaptonAl, 5 mil, Sheldahl	T3II-5 29 A11
604	Thermal control	KaptonAl, 1 mil Sheldahl	T3II-5 28-A10
603	Thermal control	In2O3/Teflon FEP/Ag/Inconel, 5 mil, General Electric	T3II 5-27-A9
602	Thermal control	Teflon FEP/Ag/Inconel 5 mil, Sheldahl	T3II-5-26-A8
601	Thermal control	Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	T3II-5-25-A7
599	Thermal control	Black paint, D111, IITRI	T3II-5-23-A5
598	Thermal control	Indium tin oxide/Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	T3II-5-22-A4
597	Thermal control	Porcelain enamel on Al, NASA Marshall Space Flight Center	T3II-5-21-A3
596	Thermal control	Indium tin oxide/Teflon FEP/Ag/Inconel, 5 mil, Sheldahl	T3II-5-20-A2
595	Thermal control	Quartz fabric 581 (Astroquartz)/Teflon FEP/Al, General Electric	T3II-5-19-A1
581	Thermal control	Teflon FEP type A, 5 mil	T3II-5-5-C5
580	Thermal control	KaptonAl, 5 mil, Sheldahl	T3II 5-4-C4
573	Thermal control	KaptonAl, 1 mil, Sheldahl	T3II-5-3-C3

DBS	Application	Description	Sample ID
578	Thermal control	Teflon FEP/Ag/Inconel 5 mil, Sheldahl	T3II-5-2-C2
577	Thermal control	Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	T3II-5-1-C1
547	Thermal control	White paint, DC92-007 TiO2/RTV 3140 Rockwell Int	L6VI-5-43-A22
541	Thermal control	White paint DC92-007 TiO2/RTV 3140, Rockwell Int	L6VI-5-42-A21
540	Thermal control	White paint TiO2/RTV 602, ML101 Air Force Materials Laboratory	L6VI-5-41-A20
539	Thermal control	White paint PS100 TiO2/silicone resin, ML101 Air Force Materials Laboratory	L6VI-5-40-A19
538	Thermal control	White paint alpha Al2O3/RTV 602, ML101, Air Force Materials Laboratory	L6VI-5-39-A18
537	Thermal control	White paint Eu2O3-RTV 602, ML101 Air Force Materials Laboratory	L6VI-5-38-A17
536	Thermal control	White paint, NS-43G NASA Goddard Space Flight Center	L6VI-5-37-A16
535	Thermal control	White paint YB-71 BIRI	L6VI-5-36-A15
534	Thermal control	White paint S13GLO BIRI	L6VI-5-35-A14
533	Thermal control	White paint Z93 BIRI	L6VI-5-34-A13
532	Thermal control	In2O3/Kapton/Al 5 mil, General Electric	L6VI-5-33-A12
531	Thermal control	Kapton/Al, 5 mil Sheldahl	L6VI-5-32-A11
530	Thermal control	Kapton/Al 1 mil, Sheldahl	L6VI-5-31-A10
529	Thermal control	In2O3-Teflon FEP/Ag/Inconel, 5 mil General Electric	L6VI-5-30-A9
528	Thermal control	Teflon FEP/Ag/Inconel 5 mil Sheldahl	L6VI-5-29-A8
516	Thermal control	Teflon FEP/Ag/Inconel 2 mil Sheldahl	L6VI-5-17-A7
512	Thermal control	Black paint DEFT, BIRI	L6VI-5-13-A5B
511	Thermal control	Indium tin oxide/Teflon FEP/Ag/Inconel, 2 mil Sheldahl	L6VI-5-12-A4
510	Thermal control	Porcelain enamel on Al NASA Marshall Space Flight Center	L6VI-5-11-A3LC
507	Thermal control	Indium tin oxide/Teflon FEP/Ag/Inconel, 5 mil Sheldahl	L6VI-5-8-A2
506	Thermal control	Quartz fabric 581 (Astroquartz)/Teflon FEP/Al General Electric	L6VI-5-7-A1
372	Thermal control	Stainless steel substrate black oxide coating	L6III-9-128-TC19-2
371	Thermal control	Al substrate/GE SHC 1010 coating	L6III-9-127-TC17-2
370	Thermal control	Al substrate/Vestar coating	L6III-9-126-TC16-5
369	Thermal control	Ta substrate/JB-1 black coating	L6III-9-125-TC15-24
368	Thermal control	Ta substrate/LMSC modified Cosomics 931 coating	L6III-9-124-TC14-5
244	Thermal control	Black oxide coating on 304 stainless steel substrate	L6III-9-8-TC19-1
240	Thermal control	GE SHC 1010 coating on Al substrate	L6III-9-4-TC17-1
239	Thermal control	Vestar coating on Al substrate	L6III-9-3-TC16-4
238	Thermal control	JB-1 black coating on Ta substrate	L6III-9-2-TC15-21
237	Thermal control	LMSC modified Cosomics 931 coating on Ta substrate	L6III-9-1-TC14-4
231	Thermal control	Rhodium coated glassy carbon substrate	L3IV-15-69-71
223	Thermal control	Teflon FEP polymer coating Spraylon 7075	L3IV-9-61-TC5
222	Thermal control	Teflon FEP polymer coating Spraylon 7075	L3IV-9-60-TC5
221	Thermal control	Black silicone high temperature paint Sperex SP-102	L3IV-9-59-TC4
220	Thermal control	Black silicone high temperature paint Sperex SP-102	L3IV-9-58-TC4
219	Thermal control	Ceramic coating black HS-4 on LI-900	L3IV-9-57-TC8
218	Thermal control	Ceramic coating black HS-4 on LI-900	L3IV-9-56-TC8
217	Thermal control	Ceramic coating black borated silica coating	L3IV-9-55-TC7
216	Thermal control	Ceramic coating black borated silica coating	L3IV-9-54-TC7
215	Thermal control	Ceramic coating white borated silica	L3IV-9-53-TC6

DBS	Application	Description	Sample ID
214	Thermal control	Ceramic coating white borated silica	L3IV-9-52-TC6
213	Thermal control	White silicone high temperature paint Spesex AP 101	L3LV-9-51-TC3
212	Thermal control	White silicone high temperature paint Spesex AP 101	L3IV-9-50 TC3
209	Thermal control	Teflon FEP polymer coating Spraylon 7075	L3IV 9 47 TC1
208	Thermal control	Teflon FEP polymer coating Spraylon 7075	L3IV-9 46 TC1
207	Thermal control	Polyurethane black paint Chemglaze Z306	L3IV 9 45 TC13
206	Thermal control	Polyurethane black paint Chemglaze Z306	L3IV-9 44 TC13
205	Thermal control	Polyurethane white paint Chemglaze A276/II	L3IV-9-43 TC12
204	Thermal control	Polyurethane white paint Chemglaze A276/II	L3IV 9-42 TC12
203	Thermal control	Coated molybdenum foil SiN4	L3IV 9 41 TC11
202	Thermal control	Coated molybdenum foil SiN4	L3IV 9-40 TC11
201	Thermal control	Coated molybdenum foil P238 filler (Al2O3)	L3IV 9 39 TC10
200	Thermal control	Coated molybdenum foil P238 filler (Al2O3)	L3IV-9 38 TC10
199	Thermal control	Coated molybdenum foil 4μ SiO2	L3IV 9 37 TC9
198	Thermal control	Coated molybdenum foil 4μ SiO2	L3IV-9 36 TC9
180	Thermal control	White thermal control paint S13GLO-6061 Al ITRI	L3IV 18 18 2
179	Thermal control	White thermal control paint S13GLO-6061 Al ITRI	L3IV-18-17 1
87	Thermal control	Sputtered black chrome coating on molybdenum substrate	L3II 15 79 N1
86	Thermal control	Black glass coating on molybdenum substrate	L3II 15 78 M1
85	Thermal control	Sputtered black chrome coating on molybdenum substrate	L3II 15-77 L1
84	Thermal control	Sputtered black rhodium coating on molybdenum substrate	L3II-15 76-k
83	Thermal control	Black thermal control paint D111/Al ITRI	L3II 18 73 H1
80	Thermal control	White thermal control paint YB 71/Al ITRI	L3II-18 72 G1
79	Thermal control	Black chrome coating on molybdenum substrate	L3II-15-71-F1
78	Thermal control	Sputtered black rhodium coating on polished molybdenum substrate	L3II 15 70 E1
77	Thermal control	Sputtered black rhodium coating on polished molybdenum substrate	L3II-15-69-D1
76	Thermal control	Polished molybdenum mirror	L3II-15-68 C1
75	Thermal control	Indium foil bonded with DC 6-1104 to aluminum substrate	L3II-15-67-B1
74	Thermal control	Rhodium foil bonded with DC 6-1104 to aluminum substrate	L3II-15-66-A1
52	Thermal control	White paint, DC92-007 TiO2/RTV 3140, Rockwell Int	L3II-5-44-A22
51	Thermal control	White paint, DC92-007 TiO2/RTV 3140, Rockwell Int	L3II-5-43-A21
50	Thermal control	White paint TiO2/RTV 602, ML101, Air Force Materials Laboratory	L3II-5-42-A20
49	Thermal control	White paint, PV100 TiO2/silicone resin, ML101 Air Force Materials Laboratory	L3II 5-41-A19
48	Thermal control	White paint, alpha Al2O3/RTV 602, ML101, Air Force Materials Laboratory	L3II-5-40 A18
43	Thermal control	White paint, Eu2O3/RTV 602, ML101, Air Force Materials Laboratory	L3II-5-35-A17
42	Thermal control	White paint, NS 43G, NASA Goddard Space Flight Center	L3II-5-34-A16
41	Thermal control	White paint, YB-71, ITRI	L3II-5-33-A15
40	Thermal control	White paint, S13GLO, ITRI	L3II-5-32 A14
39	Thermal control	White paint, Z93, ITRI	L3II-5-31-A13
38	Thermal control	In2O3/Kapton/Al, 5 mil, General Electric	L3II-5-30-A12
37	Thermal control	Kapton/Al, 5 mil, Sheldahl	L3II-5-29-A11
36	Thermal control	Kapton/Al, 1 mil, Sheldahl	L3II-5-28-A10
35	Thermal control	In2O3/Teflon FEP/Aginconel, 5 mil, General Electric	L3II 5-27 A9

DB#	Application	Description	Sample ID
34	Thermal control	Teflon FEP/Ag/Inconel, 5 mil, Sheldahl	L3II-5-26-A8
33	Thermal control	Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	L3II-5-25-A7
31	Thermal control	Black paint, D111, ITRI	L3II-5-23-A5
30	Thermal control	Indium-tin oxide/Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	L3II-5-22-A4
29	Thermal control	Porcelain enamel on Al, NASA Marshall Space Flight Center	L3II-5-21-A3
28	Thermal control	Indium tin oxide/Teflon FEP/Ag/Inconel 5 mil, Sheldahl	L3II-5-20-A2
27	Thermal control	Quartz fabric S81 (Astroquartz) Teflon FEP/Al General Electric	L3II-5-19-A1
13	Thermal control	Teflon FEP type A, 5 mil	L3II-5-5-C5
12	Thermal control	Kapton/Al 5 mil Sheldahl	L3II-5-4-C4
11	Thermal control	Kapton/Al 1 mil Sheldahl	L3II-5-3-C3
10	Thermal control	Teflon FEP/Ag/Inconel 5 mil, Sheldahl	L3II-5-2-C2
9	Thermal control	Teflon FEP/Ag/Inconel 2 mil, Sheldahl	L3II-5-1-C1
641	Thermal control	Black chrome coating on molybdenum substrate	T3II-15-65-O1
2004	Thermal control, adhesive bond	Teflon FEP/Ag/Inconel/adhesive sheet	L3I-20-1
953	Thermal control, adhesive bond	Tedlar (400BS30W11) bonded to Al with Isotack Y9469	T6III-9-127-TC18-4
831	Thermal control, adhesive bond	Tedlar (400BS30W11) bonded to Al with Isotack Y9469	T6III-9-5-TC18-3
775	Thermal control, adhesive bond	Silicone paint black vacuum distilled RTV 602	T3IV-9-49-TC2
774	Thermal control, adhesive bond	Silicone paint black vacuum distilled RTV 602	T3IV-9-48-TC2
588	Thermal control, adhesive bond	Teflon FEP/Ag/Inconel (5 mil)/NATO IIIC/Kapton, 8.5 mil	T3II-5-12-C12
587	Thermal control, adhesive bond	Teflon FEP/Ag/Inconel (5 mil)/Y966/Kapton (5 mil)	T3II-5-11-C11
586	Thermal control, adhesive bond	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Al/Kapton (5 mil)	T3II-5-10-C10
585	Thermal control, adhesive bond	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	T3II-5-9-C9
584	Thermal control, adhesive bond	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	T3II-5-8-C8
583	Thermal control, adhesive bond	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	T3II-5-7-C7
582	Thermal control, adhesive bond	Teflon FEP/Ag/Inconel (5 mil)/Eccobond 57C/Kapton (5 mil)	T3II-5-6-C6
373	Thermal control, adhesive bond	Tedlar (400BS30W11) bonded to Al with Isotack Y9469	L6III-9-129-TC18-2
243	Thermal control, adhesive bond	Tedlar (400BS30W11) bonded to Al with Isotack Y9469	L6III-9-7-TC18-1
211	Thermal control, adhesive bond	Silicone paint black vacuum distilled RTV 602	L3IV-9-49-TC2
210	Thermal control, adhesive bond	Silicone paint black vacuum distilled RTV 602	L3IV-9-48-TC2
20	Thermal control, adhesive bond	Teflon FEP/Ag/Inconel (5 mil)/NATO IIIC/Kapton, 8.5 mil	L3II-5-12-C12
19	Thermal control, adhesive bond	Teflon FEP/Ag/Inconel (5 mil)/Y966/Kapton (5 mil)	L3II-5-11-C11
18	Thermal control, adhesive bond	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Al/Kapton (5 mil)	L3II-5-10-C10
17	Thermal control, adhesive bond	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	L3II-5-9-C9
16	Thermal control, adhesive bond	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	L3II-5-8-C8
15	Thermal control, adhesive bond	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	L3II-5-7-C7
14	Thermal control, adhesive bond	Teflon FEP/Ag/Inconel (5 mil)/Eccobond 57C/Kapton (5 mil)	L3II-5-6-C6
2003	Thermal control, hardware	Chemglaze A276 painted Al sunshield covering Experiment Power and Data System	D8-Sunshield
2002	Thermal control, hardware	S13GLO painted Al box covering signal conditioning unit	D8-SCU Cover
2001	Thermal control, hardware	Chemglaze A276 painted Al sunshield covering Experiment Power and Data System	D4-Sunshield
2000	Thermal control, hardware	S13GLO painted Al box covering signal conditioning unit	D4-SCU Cover
1106	Thermal control, hardware	Ag/Teflon FEP covered cassette holding 11 sun pumped laser coatings	T6VI-6-21-II
1105	Thermal control, hardware	Ag/Teflon FEP covered aperture plate on cassette containing 25 optical samples	T6VI-13-20-A
628	Thermal control, hardware	Ag/Teflon FEP covered cassette holding 26 laser communication coatings and optical materials	T3II-6-52-IA&B

DBs	Application	Description	Sample ID
627	Thermal control, hardware	Ag/Teflon FEP covered cassette containing 11 sun pumped laser coatings	T3II-6-51-III
513	Thermal control, hardware	Ag/Teflon FEP covered cassette holding four laser communication components	L6VI-6-14-IV
59	Thermal control hardware	Ag/Teflon FEP covered cassette holding 9 laser communicatio detectors	L3II-6-51-V
1105 11	Thermal control optics	Solar absorber Black chrome on nickel foil	T6VI-13-20-11A
1105 1	Thermal control optics	Flexible mirror Dielectric Stack, Al2O3/Ag/Kapton	T6VI 13-20-10A
1104	Thermal control optics	Au mirror/Al	T6VI 5 19 B3
1103	Thermal control optics	Optical Solar Reflector OCLI SI 100	T6VI-5 18 B1
1102	Thermal control optics	Optical Solar Reflector OCLI SI 100 with conductive coating	T6VI-5-17-B2
1101	Thermal control optics	Al mirror/glass	T6VI-5-16-B4
1089	Thermal control optics	Ag mirror/Al	T6VI 5-4-B5
615	Thermal control optics	Ag mirror/Al	T3II 5 39-B6
614	Thermal control optics	Ag mirror/Al	T3II 5 38 B5
613	Thermal control optics	Al mirror/glass	T3II-5-37 B4
612	Thermal control optics	Au mirror/Al	T3II-5-36-B3
594	Thermal control optics	Optical Solar Reflector OCLI SI 100 with conductive coating	T3II 5 18 B2
593	Thermal control optics	Optical Solar Reflector OCLI SI 100	T3II 5 17 B1
527	Thermal control optics	Optical Solar Reflector OCLI SI 100 with conductive coating	L6VI-5 28 B2
525	Thermal control optics	Au mirror/Al	L6VI 5-26-B3
524	Thermal control optics	Ag mirror/Al	L6VI 5 25 B5
523	Thermal control optics	Al mirror/glass	L6VI 5 24 B4
522	Thermal control optics	Optical Solar Reflector OCLI SI 100	L6VI-5-23 B1
47	Thermal control optics	Ag mirror/Al	L3II 5-39-B6
46	Thermal control optics	Ag mirror/Al	L3II-5-38-B5
45	Thermal control optics	Al mirror/glass	L3II-5-37-B4
44	Thermal control optics	Au mirror/Al	L3II 5-36-B3
26	Thermal control optics	Optical Solar Reflector OCLI SI 100 with conductive coating	L3II-5-18-B2
25	Thermal control optics	Optical Solar Reflector OCLI SI 100	L3II-5-17-B1

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