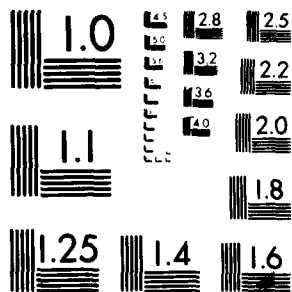


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| 20. ABSTRACT<br>This is the Soviet Laser Bibliography for March-April 1977 and is No. 28<br>in a continuing series on Soviet laser developments. The coverage includes basic<br>research on solid state, liquid, gas, and chemical lasers; components; nonlinear<br>optics; spectroscopy of laser materials; ultrashort pulse generation; theoretical<br>aspects of advanced lasers; and general laser theory. Laser applications are<br>listed under biological effects; communications; beam propagation; computer<br>technology; holography; laser-induced chemical reactions; measurement of laser<br>parameters; laser measurement applications; laser-excited optical effects;<br>beam-target interaction; and plasma generation and diagnostics. |                                     |                                                                |

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### Introduction

This bibliography has been compiled under an interagency agreement as a continuing effort to document current Soviet-bloc developments in the quantum electronics field. The period covered is March-April 1977, and includes all significant laser-related articles received by us in that interval. The bulk of the entries come from the approximately 30 periodicals which are known to publish the most significant findings in Soviet laser technology. Citations from the Russian Reference Journals are included, as well as entries from the CIRC data base not otherwise covered. Laser items from the popular or semipopular press are generally omitted.

Section IIG, Instrumentation and Measurement, has been removed and made into separate categories: Section IIG, Measurement of Laser Parameters, and Section IIH, Laser Measurement Applications, with subsections on Direct Measurement by Laser, and Laser-Excited Optical Effects. The section titled, "Translations," lists currently available translations of laser articles.

For convenience we have abbreviated frequently cited source names; a source abbreviations list and an author index are included. All sources cited with no parenthetical notation are available at the Library of Congress. A parenthetical entry (RZh, KL) indicates the secondary source in which the citation was found as a bibliographic entry or abstract, but for which the original source is not currently available at the Library. The authors' affiliations are indicated by the numbers in parentheses following the authors' names in the text and are listed in the Author Affiliations List. New affiliations are assigned a new number and are added to a cumulative list which includes all affiliations from 1969 to the present. Only those affiliations which appear in this issue are listed in this issue's Author Affiliations List.

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## I. BASIC RESEARCH

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G. MEASUREMENT OF LASER PARAMETERS

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#### H. LASER MEASUREMENT APPLICATIONS

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J. BEAM-TARGET INTERACTION

1. Metal Targets

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FikHOM, no. 2, 1977, 10-14.
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Simultaneous action of pulsed and c-w optical radiation on metals.  
ZhTF P, no. 5, 1977, 193-197.
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intense radiation from metals. ZhTF, no. 3, 1977, 532-541.
405. Gurevich, M.Ye., L.M. Larikov, V.F. Mazanko, A.Ye. Pogorelov, and V.M.  
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atoms. FikHOM, no. 2, 1977, 7-9.
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the action of high-power optical radiation. ZhTF, no. 3, 1977, 660-664.
407. Katrich, A.B., Yu.V. Koltok, V.M. Kuz'michev, and Yu.M. Latynin (34).  
Excitation of an electromotive force in metallic films by a laser pulse.  
ZhTF P, no. 8, 1977, 369-372.

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413. Denishchuk, V.V., Ye.P. Dobrovinskaya, O.N. Kornilich, B.S. Perli, and B.S. Skorobogatov (188). Study of the effect of pores on damage to ruby single-crystals under laser radiation. KE, no. 3, 1977, 686-688.
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415. Vigasin, A.A. (2). Diffraction of light on absorptive impurities in solids. KE, no. 3, 1977, 662-666.

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417. Opachko, I.I., O.V. Luksha, I.P. Zapesochnyy, S.S. Pop, and Yu.Yu. Firtsak (136). Preparing films of complex compounds by means of giant laser pulses. UFZh, no. 4, 1977, 659-663.
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419. Smirnov, V.N. (0). The kinetics of heating a semiconductor plate with optical radiation. ZhTF P, no. 8, 1977, 352-357.

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425. Mikhaylov, V.V. (0). Pulse induced by the incidence of intense radiation on a surface. MZhiG, no. 2, 1977, 196-199.
426. Zhibankov, R.G., N.V. Ivanova, N.I. Insarova, Ye.V. Korolik, and A.N. Chumakov (0). Structural changes in cellulose from the effect of pulsed laser radiation. ZhPS, v. 26, no. 4, 1977, 687-690.

K. PLASMA GENERATION AND DIAGNOSTICS

427. Ageyev, V.P., A.I. Barchukov, F.V. Bunkin, V.I. Konov, A.S. Silenok, and N.I. Chapliyev (0). Experimental modeling of a laser air-jet engine. ZhTF P, no. 22, 1976, 1032-1035. (RZhF, 4/77, 4D1149)
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### III. MONOGRAPHS, BOOKS, CONFERENCE PROCEEDINGS

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456. Golografiya i obrabotka informatsii (Holography and information processing). Leningrad, Nauka, 1976, 196 p. (RBL, 3-4/77, 887)
457. Grodzovskiy, G.L., ed. (133). Lazernoye doplerovskoye izmereniye skorosti gazovykh potokov. Sbornik 1. Teoriya izmereniya. Elektronnyye sistemy registratsii (Laser Doppler measurement of the velocity of gas flows. Collection 1. Theory of measurement. Electronic recording systems). Tsentral'nyy aero-gidrodinamicheskyy institut. Trudy, no. 1750, 1976, 286 p. (RZhF, 4/77, 4D1150)
458. Grodzovskiy, G.L., ed. (133). Lazernoye doplerovskoye izmereniye skorosti gazovykh potokov. Sbornik 2. Rasseivayushchiye chastitsy. Aerodinamicheskiye issledovaniya (Laser Doppler measurement of the velocity of gas flows. Collection 2. Dispersive particles. Aerodynamic studies). Tsentral'nyy aero-gidrodinamicheskyy institut. Trudy, no. 1755, 1976, 205 p. (RZhF, 4/77, 4D1131)
459. Kinetika prostykh modeley teorii kolebaniy (Kinetics of simple models of vibration theory). Fizicheskiy institut AN SSSR. Trudy, no. 90, 1976, 208 p. (RZhF, 4/77, 4D1018)

460. Kopylov, P.M., and A.N. Tachkov (0). Televideniye i golografiya (Television and holography). Moskva, Svyaz', 1976, 168 p.  
(RZhRadiot, 3/77, 3Ye256)
461. Optoelektronnyye pribory i ustroystva otobrazheniya informatsii.  
Vsesoyuznyy nauchno-tekhnicheskiy seminar. Sevastopol', 1975. Tezisy dokladov (Optoelectronic instruments and information display devices. All-Union scientific-technological seminar. Sevastopol, 1975. Summaries of the reports). Moskva, 1975, 35 p. (KLDV, 3/76, 3961)
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463. Soloukhin, R.I., and V.P. Chebotayev, eds. (0). Gazovyye lazery (Gas lasers). Novosibirsk, Nauka, 1977, 360 p.
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(RBL, 3-4/77, 1083)
465. IV Vsesoyuznaya konferentsiya po fizicheskim osnovam peredachi informatsii lazernym izlucheniym. Tezisy dokladov (Fourth All-Union Conference on the Physical Bases for Transmitting Information by Laser. Summaries of the reports). Kiyev, Znaniye, 1976, 219 p. (RZhRadiot, 4/77, 4Ye155)

#### IV. TRANSLATIONS

##### A. COMMERCIAL TRANSLATIONS

A number of Soviet journals which contain articles on laser research are routinely translated cover-to-cover by commercial firms. These are generally available from four to twelve months after the original Russian publication appears. The bulk of such translated laser articles will be found in the following journals:

| <u>Journal abbreviation</u> | <u>Transliterated title</u>                                | <u>English translation</u>                       |
|-----------------------------|------------------------------------------------------------|--------------------------------------------------|
| FAiO                        | Akademiya nauk SSSR. Fizika atmosfery i okeana             | Izvestiya, Atmospheric and Oceanographic Physics |
| FTP                         | Fizika i tekhnika poluprovodnikov                          | Soviet Physics--Semiconductors                   |
| ---                         | Fizika plazmy                                              | Soviet Journal of Plasma Physics                 |
| FTT                         | Fizika tverdogo tela                                       | Soviet Physics--Solid State                      |
| IT                          | Izmeritel'naya tekhnika                                    | Measurement Techniques                           |
| IVUZ Radiofiz               | Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika        | Radio Physics and Quantum Electronics            |
| KSpF                        | Kratkiye soobshcheniya po fizike                           | Soviet Physics. Lebedev Institute Reports        |
| NM                          | Akademiya nauk SSSR. Izvestiya. Neorganicheskiye materialy | Inorganic Materials                              |
| OiS                         | Optika i spektroskopiya                                    | Optics and Spectroscopy                          |
| OMP                         | Optiko-mekhanicheskaya promyshlennost'                     | Soviet Journal of Optical Technology             |

| <u>Journal abbreviation</u> | <u>Transliterated title</u>                               | <u>English translation</u>                         |
|-----------------------------|-----------------------------------------------------------|----------------------------------------------------|
| PTE                         | Pribory i tekhnika eksperimenta                           | Instruments and Experimental Techniques            |
| RiE                         | Radiotekhnika i elektronika                               | Radio Engineering and Electronic Physics           |
| TVT                         | Teplofizika vysokikh temperatur                           | High Temperature Physics                           |
| UFN                         | Uspekhi fizicheskikh nauk                                 | Soviet Physics--Uspekhi                            |
| ZhETF                       | Zhurnal eksperimental'noy i tekhnicheskoy fiziki          | Soviet Physics--JETP                               |
| ZhETF P                     | Pis'ma v zhurnal eksperimental'noy i tekhnicheskoy fiziki | JETP Letters                                       |
| ZhPMTF                      | Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki       | Journal of Applied mechanics and Technical Physics |
| ZhPS                        | Zhurnal prikladnoy spektroskopii                          | Journal of Applied Spectroscopy                    |
| ZhTF                        | Zhurnal tekhnicheskoy fiziki                              | Soviet Physics--Technical Physics                  |
| ZhTF P                      | Pis'ma v zhurnal tekhnicheskoy fiziki                     | Soviet Technical Physics Letters                   |

#### B. MISCELLANEOUS TRANSLATIONS

A number of laser books and articles in Russian are translated independently by private or government activities and can be obtained from these sources. It should be noted, however, that because of copyright restrictions, not all government-sponsored translations are available to the general public.

The following is a partial list of laser translations for the current interval.

Velichko, O.A. State of the art survey of cw laser welding. Avtomaticheskaya svarka, Kiyev, no.5, 1977, 44-50. JPRS, no. L/7477, 1977, 18-29.

Velichko, O.A. Rapid laser welding of thin-sheet nickel. Avtomaticheskaya svarka, Kiyev, no.4, 1977, 69-70. JPRS, no. L/7477, 1977, 30-32.

Tkeshelavshvili, G.I. Second All-Union school-conference on 'laser isotope separation'. Atomnaya energiya, no.2, 1977, 147-148. JPRS, no. L/7477, 1977, 51-53.

Yegorov, V.S. Automation of optical element adjustment in a laser installation. Avtomatizatsiya yustirovki opticheskikh elementov v lazernoy ustanovke, Russian Preprint, no. 135, 1977, 1-34. JPRS 70250, no. 24, 19-34.

Kolomenskiy, A.A. and A.N. Lebedev. Forced undulatory radiation of relativistic electrons and physical processes on an 'electron' laser. Vynuzhdennoye ondulyatornoye izlucheniye relyativistskikh elektronov i fizicheskiye protsessy v 'elektronnon lazere', Russian Preprint, no. 127, 1977, 1-23. JPRS 70250, no. 24, 1977, 35-49.

Volkovitskiy, O.A. Experimental investigation of the influence of radiation of CO<sub>2</sub> lasers on a droplet cloud medium. Meteorologiya i gidrologiya, no. 9, 1977, 12-23. JPRS L/7490, no. 9, 1977, 13-27.

|               |   |                                                                                                                                 |
|---------------|---|---------------------------------------------------------------------------------------------------------------------------------|
| BWAT          | - | Biuletyn Wojskowej akademii technicznej<br>J. Dabrowskiego                                                                      |
| DAN SSSR      | - | Akademiya nauk SSSR. . klady                                                                                                    |
| FA10          | - | Akademiya nauk SSSR. Izvestiya. Fizika<br>atmosfery i okeana                                                                    |
| FD1R          | - | Fizyka dielektrykow i radiospektroskopia.<br>Prace Komisji matematyczno-przyrodniczej<br>Poznanskie towarzystwo przyjaciol nauk |
| FG1V          | - | Fizika gorenija i vzryva                                                                                                        |
| FIKhOM        | - | Fizika i khimiya obrabotka materialov                                                                                           |
| FKhMM         | - | Fiziko-khimicheskaya mekhanika materialov                                                                                       |
| FTP           | - | Fizika i tekhnika poluprovodnikov                                                                                               |
| FTT           | - | Fizika tverdogo tela                                                                                                            |
| IAN Arm       | - | Akademiya nauk Armyanskoy SSR. Izvestiya.<br>Fizika                                                                             |
| IAN B         | - | Akademiya nauk Belorusskoy SSR. Izvestiya.<br>Seriya fiziko-matematicheskikh nauk                                               |
| IAN Fiz       | - | Akademiya nauk SSSR. Izvestiya. Seriya<br>fizicheskaya                                                                          |
| IAN Lat       | - | Akademiya nauk Latviyskoy SSR. Izvestiya.<br>Seriya fizicheskikh i tekhnicheskikh nauk                                          |
| IAN Mold      | - | Akademiya nauk Moldavskoy SSR. Izvestiya                                                                                        |
| IAN Uz        | - | Akademiya nauk Uzbekskoy SSR. Izvestiya.<br>Seriya fiziko-matematicheskikh nauk                                                 |
| IT            | - | Izmeritel'naya tekhnika                                                                                                         |
| IVUZ Fiz      | - | Izvestiya vysshikh uchebnykh zavedeniy.<br>Fizika                                                                               |
| IVUZ Geod     | - | Izvestiya vysshikh uchebnykh zavedeniy.<br>Geodeziya i aerofotos"yemka                                                          |
| IVUZ Mash     | - | Izvestiya vysshikh uchebnykh zavedeniy.<br>Mashinostroyeniye                                                                    |
| IVUZ Priboro  | - | Izvestiya vysshikh uchebnykh zavedeniy.<br>Priborostroyeniye                                                                    |
| IVUZ Radiofiz | - | Izvestiya vysshikh uchebnykh zavedeniy.<br>Radiofizika                                                                          |

|             |   |                                                                                                                                  |
|-------------|---|----------------------------------------------------------------------------------------------------------------------------------|
| KE          | - | Kvantovaya elektronika                                                                                                           |
| KhVE        | - | Khimiya vysokikh energi                                                                                                          |
| KLDV        | - | Knizhnaya letopis'. Dopolnitel'nyy vypusk                                                                                        |
| KSpF        | - | Kratkiye soobshcheniya po fizike                                                                                                 |
| MZhIG       | - | Akademiya nauk SSSR. Izvestiya.<br>Mekhanika zhidkosti i gaza                                                                    |
| NM          | - | Akademiya nauk SSSR. Izvestiya.<br>Neorganicheskiye materialy                                                                    |
| OIS         | - | Optika i spektroskopiya                                                                                                          |
| OMP         | - | Optiko-mekhanicheskaya promyshlennost'                                                                                           |
| Otkr izobr  | - | Otkrytiya, izobreteniya, promyshlennyye<br>obraztsy, tovarnyye znaki                                                             |
| PTE         | - | Pribory i tekhnika eksperimenta                                                                                                  |
| RBL         | - | Russian Book List                                                                                                                |
| RiE         | - | Radiotekhnika i elektronika                                                                                                      |
| RZhF        | - | Referativnyy zhurnal. Fizika                                                                                                     |
| RZhGeofiz   | - | Referativnyy zhurnal. Geofizika                                                                                                  |
| RZhMekh     | - | Referativnyy zhurnal. Mekhanika                                                                                                  |
| RZhMetrolog | - | Referativnyy zhurnal. Metrologiya i<br>izmeritel'naya tekhnika                                                                   |
| RZhRadiot   | - | Referativnyy zhurnal. Radiotekhnika                                                                                              |
| Sb1         | - | Sbornik. Gazovyye lazery. Novosibirsk, Nauka,<br>1977.                                                                           |
| Sb2         | - | Nauchnaya konferentsiya aspirantov i molodykh<br>uchenykh. Sektsiya fizicheskikh nauk. Materialy.<br>Uzhgorod universitet, 1976. |
| Sb3         | - | TsAGI [Tsentral'nyy aero-gidrodinamicheskiy<br>institut]. Uchenyye zapiski, no. 2, 1976.                                         |
| Sb4         | - | Vsesoyuznyy gidrologicheskiy s"yezd. 4th.<br>Trudy. Gidrofizika, no. 6, Leningrad, 1976.                                         |
| Sb5         | - | TsAGI. Uchenyye zapiski, no. 4, 1976.                                                                                            |
| Sb6         | - | TsAGI. Uchenyye zapiski, no. 5, 1976.                                                                                            |
| Sb7         | - | TsAGI. Uchenyye zapiski, no. 6, 1976.                                                                                            |

|          |   |                                                                                      |
|----------|---|--------------------------------------------------------------------------------------|
| TKiT     | - | Tekhnika kino i televideniya                                                         |
| Tr1      | - | Trudy metrologicheskikh institutov SSSR. VNII metrologii, no. 199(259), 1976.        |
| Tr2      | - | Leningradskiy tekhnicheskoy institut. Izvestiya, no. 194, 1976.                      |
| Tr3      | - | Moskovskiy energeticheskoy institut. Trudy, no. 295, 1976.                           |
| Tr4      | - | Moskovskiy energeticheskoy institut. Trudy, no. 301, 1976.                           |
| Tr5      | - | Tsentral'nyy aero-gidrodinamicheskoy institut. Trudy, no. 1755, 1976.                |
| Tr6      | - | VNII fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy. Trudy, no. 28(58), 1976. |
| Tr7      | - | Moskovskiy avtomobil'no-dorozhnyy institut. Trudy, no. 121, 1976.                    |
| TVT      | - | Teplofizika vysokikh temperatur                                                      |
| UFN      | - | Uspekhi fizicheskikh nauk                                                            |
| UFZh     | - | Ukrainskiy fizicheskoy zhurnal                                                       |
| VAN SSSR | - | Akademiya nauk SSSR. Vestnik                                                         |
| VMU      | - | Moskovskiy universitet. Vestnik. Seriya fizika, astronomiya                          |
| ZhETF    | - | Zhurnal eksperimental'noy i teoreticheskoy fiziki                                    |
| ZhETF P  | - | Pis'ma v Zhurnal eksperimental'noy i teoreticheskoy fiziki                           |
| ZhFKh    | - | Zhurnal fizicheskoy khimii                                                           |
| ZhNIPFIK | - | Zhurnal nauchnoy i prikladnoy fotografii i kinematografii                            |
| ZhPMTF   | - | Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki                                  |
| ZhPS     | - | Zhurnal prikladnoy spektroskopii                                                     |
| ZhTF     | - | Zhurnal tekhnicheskoy fiziki                                                         |
| ZhTF P   | - | Pis'ma v Zhurnal tekhnicheskoy fiziki                                                |
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| GREGORKIEWICZ W | 16    | ISHKHANYAN M N  | 10    |   | KARAPETIAN M A   | 6     | KHOKHOV V A       | 45    |
| GRENISHIN A S   | 14    | IVANCHENKO A I  | 10    |   | KARAYAYEV S M    | 28    | KHOLIN I V        | 56    |
| GREYSUKH G I    | 37    | IVANOV I G      | 7,16  |   | KARLOV N V       | 24    | KHOTKEVICH A V    | 52    |
| GRIBKOVSKIY V P | 3     | IVANOV V S      | 12    |   | KARLOV S P       | 24    | KHULORDAVA T G    | 40    |
| GRIGOR'YEV F V  | 60    | IVANOV V        | 32    |   | KARPUKHO F V     | 10    | KHVALOVSKIY V V   | 33    |
| GRIGOR'YEV I S  | 41    | IVANOVA N V     | 38    |   | KASHLATY R YE    | 4     | KHYUPPENEN V P    | 17    |
| GRIN' YU G      | 24    | IVANOVA T G     | 59    |   | KASPEROVICH A N  | 4     | KIDYAROV B I      | 24    |
| GRISHINA I A    | 9     | IVANUSHKINA L V | 60    |   | KAS'YANOV YU S   | 28    | KIELESINSKI M     | 61    |
| GRODZOVSKIY G L | 47,64 | IVLEV G D       | 4     |   | KATRICH A B      | 10,41 | KIELICH S         | 23    |
| GROMOV YU N     | 43    | IZOTOV A N      | 58    |   | KATSEV I L       | 36    | KIKINESHI A A     | 35    |
| GRYZINSKI M     | 61    |                 | 2     |   | KATULEVSKIY YU A | 53    | KIL'PIO A V       | 4     |
| GUDZENKO L I    | 26    | J               |       |   | KATULEVSKIY YU A | 12    | KIRILLOV G A      | 53    |
| GULAMOV SH A    | 4     |                 |       |   | KATSEV I L       | 15    | KIRIY A YU        | 59    |
| GUREVICH M YE   | 56    | JACH K          |       |   | KARTYSHOV V G    | 5     | KIRYUKHIN YU I    | 42    |
| GUREVICH S A    | 3     | JANKIEWICZ Z    | 61    |   | KASHLATY R YE    | 40    | KISELEV V A       | 27    |
| GUROV K P       | 57    | JANOWSKA B      | 16,61 |   | KASPEROVICH A N  | 34    | KISELEV V M       | 14,15 |
| GUR'YANOV A N   | 29    | JANOWSKI M      | 37    |   | KAS'YANOV YU S   | 35    | KISELEVA K V      | 3     |
| GUR'YEV V I     | 14    | JERZYKIEWICZ A  | 8     |   | KATSEV I L       | 61    | KIT M P           | 37    |
| GUSEV YU L      | 2     | JUNGE K         | 61    |   | KATULEVSKIY YU A | 56    | KLEPIKOVA N V     | 3     |
| GUS'KOV L N     | 6     |                 | 64    |   | KATULEVSKIY YU A | 32    | KLEVTISOV P V     | 2     |
| GUTKIN A A      | 53    |                 |       |   | KAVILADZE M SH   | 4     | KLIMOV V D        | 41    |
| GUZHVA V G      | 17    |                 |       |   | KAZAKOV B N      | 53    | KLOCHIKHIN A A    | 26    |
|                 |       |                 |       |   |                  | 25    | KLOTIN'SH E E     | 53    |

|                  |           |                  |        |                  |                |                |               |
|------------------|-----------|------------------|--------|------------------|----------------|----------------|---------------|
| KNYAZEV I N      | 7         | KOROLENKO V G    | 14     | KRSEK J          | 44             | KUZNETSOV S M  | 2             |
| KOCHUBEY S A     | 6         | KOROLEV V I      | 4      | KRUGLIKOV S V    | 27, 48         | KUZNETSOV V M  | 62            |
| KOGAN YA M       | 4         | KOROLIK YE V     | 59     | KRUMIN' A E      | 34             | KVASIL B       | 24            |
| KOLESIK A V      | 51        | KORONKEVICH V P  | 37     | KRUZHALOV S V    | 53             | KVIRIYA M S    | 53            |
| KOLESIK V P      | 9         | KOSHELEV K N     | 63     | KRYNETSKIY B B   | 15             | KWASNIOWSKI D  | 6             |
| KOLESOV G V      | 43        | KOSMOL M         | 20     | KRYUKOV P G      | 1              |                |               |
| KOLEV I N        | 5         | KOSTYSHIN M T    | 37     | KRYZANOWSKI A    | 41             | L              |               |
| KOLOBRODOV G N   | 38        | KOTELKIN YU D    | 48     | KTIKTOROV V I    | 63             |                |               |
| KOLOMENSKIY AL A | 24        | KOTLYAR P YE     | 53     | KUBICKI J        | 61             | I ADYGIN M V   | 6             |
| KOLOMEYKO E P    | 29        | KOTOV YU A       | 15     | KUCHERENKO O K   | 9              | LAKOBA I S     | 26            |
| KOLOMIYSKIY YU R | 7         | KOTYUK A F       | 4, 45  | KUDABA V YE      | 48             | LANDA P S      | 27            |
| KOLOTAYEV N P    | 46        | KOVAL'CHUK B M   | 7      | KUDRYAVTSEV N N  | 17             | LANG J         | 13            |
| KOLTOK YU V      | 17, 56    | KOVAL'CHUK V L   | 30     | KUDRYAVTSEV YE M | 12             | LANTEV I D     | 52            |
| KOMAREVSKIY V A  | 53        | KOVALEV A S      | 9      | KUDRYAVTSEVA A D | 18             | LARIKOV L M    | 56            |
| KOMAROV V A      | 30        | KOVALEV I D      | 52     | KUKHTAREV N V    | 27             | LARIN N V      | 52            |
| KOMPANETS I N    | 33        | KOVALEV V I      | 59, 61 | KULAKOV YU A     | 12             | LATUSH YE L    | 11            |
| KON A I          | 31        | KOVALEVICH V I   | 55     | KULESH V P       | 13             | LATYNIN YU M   | 17, 56        |
| KONAREV V P      | 2, 24, 30 | KOVALEVSKIY D V  | 15     | KULAKOV YU A     | 22             | LAU A          | 22            |
| KONDILENKO YE I  | 22        | KOVSHAROV N F    | 10     | KULESH V P       | 39             | LAVROV L M     | 60            |
| KONDRATENKO A M  | 37        | KOWALSKI A       | 6      | KULIKOV S M      | 55             | LAVROVSKIY L A | 1             |
| KONDRAT'YEV YU N | 2         | KOWALSKI S       | 61     | KUNEV S K        | 45, 46, 47, 48 | LAVRUSHKO A G  | 21            |
| KONONENKO V K    | 3, 55     | KOZACHENKO M L   | 45     | KUNIN L L        | 53             | LAZO V V       | 28            |
| KONONOV E YA     | 61        | KOZHEVNIKOVA A M | 34     | KURATEV I I      | 53             | LEBELEVA L YA  | 3             |
| KONONOV V A      | 17        | KOZLOV A P       | 28     | KURBATOV A A     | 34             | LEGASOV V A    | 41            |
| KONONOVA S V     | 45        | KOZLOV B M       | 57     | KURBATOV L N     | 55             | LENZ K         | 22            |
| KONOV V I        | 59        | KOZLOV V V       | 48     | KURBATOV YU A    | 13             | LEONOV A G     | 11            |
| KONYUKHOV V K    | 12        | KOZLOVSKAYA O V  | 17     | KURBATOV YU A    | 21             | LEONTOVICH A M | 19            |
| KOPARANOVA N S   | 34        | KOZULIN A T      | 53     | KURBATOV YU A    | 62             | LETOV D A      | 7, 40, 41, 63 |
| KOPICA M         | 36        | KRASNOV M M      | 28     | KURDYAVTSEVA G P | 4              | LEVANYUK A P   | 30            |
| KOPINETS I F     | 38        | KRASYUK I K      | 58     | KURDYUMOV S P    | 7, 8           | LEVCHENKO D G  | 54            |
| KOPYLOV P M      | 65        | KRATIROV I A     | 43     | KURZYNSKI Z      | 17             | LEVCHENKO V YA | 43            |
| KORABLEVA S L    | 25        | KREKOV G M       | 55     | KUTSAK A A       | 61             | LEVSHUNOV R I  | 48            |
| KORDONSKIY KH B  | 48        | KREKOVA M M      | 32     | KUZ'MENKO V A    | 48             | LIBENSON M N   | 46            |
| KORETSKIY YA P   | 12        | KRINDACH D P     | 21     | KUZ'MICHEV V M   | 41             | LIKHOLIT N I   | 56, 58        |
| KORMER S B       | 53, 60    | KRISTANSON YA ZH | 65     | KUZMINOV YE G    | 17, 56         | LIPOWIECKI T   | 22            |
| KORNILICH O N    | 57        | KROKHIN O N      | 1      | KUZNETSOV A A    | 54             | LISITSA M P    | 43            |
| KORNIYENKO L S   | 62        | KROKHIN O N      | 59, 62 | KUZNETSOV I L    | 45             | LISITSYN V N   | 54            |
| KOROBKIN V V     | 17        | KROPOTKIN M A    | 48     | KUZNETSOV O K    | 30             | LIZUNOV V D    | 6, 10         |
| KOROCHKIN L S    | 17        | KROSHKO V N      | 12     |                  | 28             |                | 49            |

|                |    |                  |         |                     |          |                   |        |
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| LOBACHEV V A   | 58 | MAKHVILADZE T M  | 27      | MAYOROV S A         | 33, 38   | MOSKIYENKO M V    | 11     |
| LOBKO V V      | 7  | MAKIN V S        | 56      | MAYOROV V S         | 21       | MOTKIN V S        | 17     |
| LOBOV G D      | 18 | MAKIYENKO E V    | 32      | MAZAN'KO I P        | 6        | MOYSA M I         | 57     |
| LOBOV L I      | 31 | MAKOGON M M      | 5       | MZANKO V F          | 56       | MOZHAROVSKIY A M  | 19     |
| LOGINOV N A    | 9  | MAKOVKIN A V     | 29      | MAZING M A          | 61       | MOZOL'KOV A S     | 47, 50 |
| LOGVINSKIY L M | 34 | MAKSIMOV D YE    | 49      | MZURIN I M          | 40       | MTSKERADZE G SH   | 33     |
| LOMAKIN V N    | 30 | MAKSIMOV G A     | 52      | MELASHVILI T A      | 53       | MUMINOV R A       | 4      |
| LOMONOSOV V V  | 62 | MAKSIMOVA G V    | 4       | MELIK-SARKISYAN A A | 10       | MUMLADZE V V      | 40     |
| LORINCZ E      | 13 | MAKSIMOVSKIY S N | 4       | MEL'NIKOV L A       | 13, 62   | MURATOV YE A      | 8      |
| LOSEV V F      | 10 | MAKUKHA V K      | 1       | MEL'NIKOV N A       | 22, 23   | MURAVITSKIY M A   | 1      |
| LOSHKAREVA N N | 37 | MALINOVSKIY V K  | 57      | MEN'SHIKH O F       | 30       | MUSTAFIN K S      | 37     |
| LUCHIN V I     | 52 | MALYKHINA N M    | 5       | MESYATS G A         | 7, 8, 10 | MYLNKOVA I YE     | 54     |
| LUGINA A S     | 20 | MAL'SUB YU E     | 30      | MEYERSON A YE       | 37       | MYSHLYAYEV I F    | 21     |
| LUGOVOY V I    | 52 | MAL'TSEV YE I    | 42      | MIKABERIDZE A A     | 39       |                   |        |
| LUGOVSKOY V B  | 56 | MALYSHEV V I     | 18      | MIKAEVLYAN A L      | 2        | N                 |        |
| LUKIN V P      | 32 | MALYUTIN A A     | 4       | MIKALKEVICHYUS M P  | 54       |                   |        |
| LUKISHOVA S G  | 58 | MALYY V I        | 22      | MIKHALEVSKIY V S    | 11       | NAATS I E         | 32     |
| LUKSHA O V     | 58 | MAMAYEV V L      | 50      | MIKHAYLENKO YU M    | 48       | NABOYKIN YU V     | 3, 54  |
| LUK'YANOVA A N | 30 | MAMEDOV SH S     | 9       | MIKHAYLOV V V       | 59       | NALIMOV I P       | 38     |
| LUNTER S G     | 19 | MANDROSOV V I    | 38      | MIKHAYLOVA G V      | 55       | NALIVAYKO V I     | 30, 33 |
| LUPANOV V N    | 24 | MANENKOV A A     | 58      | MIKHEYEV L D        | 14       | NAMOT V A         | 42     |
| LUPKOVICS G    | 13 | MANYLOV V I      | 7       | MIRNOV S A          | 17       | NAPARTOVICH A P   | 8      |
| LUR'YE A M     | 51 | MARENINIKOV S I  | 2, 35,  | MILINKEVICH A V     | 25       | NASYROV U         | 54     |
| LUZHAIN V G    | 29 |                  | 52      | MILOVIDOV V L       | 44       | NATAROVSKIY S N   | 33     |
| LYAKHOV G A    | 21 | MARGOLIN L VA    | 60      | MINAYEV P V         | 60       | NAUMOV V G        | 7, 8   |
| LYAMSHEV L M   | 32 | MARKIN YE P      | 40      | MINOGIN V G         | 41       | NAYDENOVA L V     | 33     |
| LYAPIN A G     | 40 | MARKOV V B       | 33, 38, | MIRINOVATOV M M     | 9        | NAYMARK S I       | 34     |
| LYSIKOV V N    | 28 |                  | 39      | MIRONOV S A         | 31       | NAZARENKO M M     | 49     |
| LYSOV A B      | 30 | MARKOVA G V      | 45      | MIRONOV V L         | 31       | NAZARYAN A A      | 10     |
| LYUBCHENKO V V | 2  | MARKOVA S B      | 11      | MIROSHNIK G A       | 27       | NECHAYEV S YU     | 18     |
| LYUL'KA V A    | 27 | MASALOV A V      | 26      | MIRTOVA S A         | 48       | NEKRASOV I P      | 19     |
|                |    | MATCZAK M J      | 36      | MIRZAYEV AG T       | 9, 44    | NESTERIKHIN YU YE | 35     |
|                |    | MATIYENKO B G    | 34      | MIRZAYEV AS T       | 44       | NEUSTRUYEV V B    | 29     |
|                |    | MATSVEYKO A A    | 15, 16, | MISHIN V A          | 41       | NEVOLIN V M       | 52     |
|                |    |                  | 29      | MIT'KIN V M         | 5        | NEZHEVENKO YE S   | 53     |
| MACIEJEWSKI A  | 42 | MATVEYEV A L     | 17      | MITROFANOVA N V     | 50       | NIDAYEV YE V      | 59     |
| MAGNITSKIY N A | 62 | MATVEYEV I N     | 2, 19,  | MIZEROV M N         | 3        | NIKITIN B I       | 49     |
| MAGNITSKIY S A | 62 |                  | 24, 30  | MORGUN YU F         | 1, 58    | NIKITIN YE P      | 29     |
| MAKARENKO V A  | 56 | MATVIYENKO G G   | 32      | MOROZOVA T P        | 29       | NIKITIN YE YE     | 13     |
| MAKAROV A I    | 21 | MATYUSHKIN E V   | 55      | MOSKALIK K G        | 28       | NIKOLAYEVA V I    | 51     |
| MAKAROV YE F   | 14 |                  |         |                     |          |                   |        |



|                      |        |       |                     |        |                   |       |
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| NIKOLOVA L           | 39     | P     | PLOTNIKOV A F       | 35,37  | PSHEZHETSKIY S YA | 41    |
| NIKOL'SKIY I K       | 53     |       | PLYATSKO G V        | 57     | PUDKOV S D        | 56,57 |
| NOSIK V A            | 48     | 3     | POBGAYETSKIY V N    | 18     | PUSTOVALOV V V    | 59    |
| NOVGOROTSEV A B      | 18     | 1     | PODGORNIY A P       | 3,54   | PYATNITSKIY L N   | 60    |
| NOVIKOV S S          | 12     | 34    | POGORELOV A YE      | 56     | PYKHAL'SKAYA G V  | 41    |
| NOVIKOV V G          | 43     | 42    | POGORETSKIY P P     | 38     |                   |       |
| NOVOSELOV N A        | 15     | 46    | POKATILOV YE P      | 25     | R                 |       |
| NOWAK A              | 61     | 7     | POKROVSKAYA F S     | 54     |                   |       |
| NOWAKOWSKI W         | 16     | 61    | POLKOVNIKOV B F     | 25     | RADAUTSAN S I     | 17    |
| NOWIKOWSKI J         | 61     | 28    | POLOVINKIN A N      | 30     | RADLOFF W         | 64    |
| NURKOV-MOROZOV YE YE | 2      | 4,58  | POLOVINKO V V       | 31     | RADZYUKEVICH V P  | 34    |
|                      |        | 7     | POLUEKTOV I A       | 20,25  | RAGOZIN YE N      | 15,60 |
| O                    |        | 36    | POLUNIN G S         | 29     | RAGUL'SKIY V V    | 23    |
| ODULOV S G           | 33,37, | 53    | POLYAKOVA I P       | 49     | RAKHIMOV A T      | 8,9   |
|                      | 38,39  | 41    | PONOMARENKO A G     | 7,8,14 | RAPOPORT B I      | 30    |
| OGURTSOVA L A        | 3,54   | 45    | PONOMAREV YU N      | 18     | RASPOPOV N A      | 44    |
| OL'KHOVSKIY I P      | 18     | 24    | PONTUS L I          | 52     | RATNIKOV S I      | 30    |
| ONISHCHENKO A M      | 21     | 17    | POP S S             | 10,58  | RAZHEV A M        | 10    |
| OPACHKO I I          | 10,58  | 2     | POPOV A K           | 20,24  | RAZUMOV L N       | 36    |
| ORAYEVSKIY A N       | 40,42  | 19,31 | POPOV L N           | 43     | RAZUMOVA T K      | 54    |
| ORISHCH A M          | 8      | 15,60 | POPOV YU M          | 25     | REMESNIK V G      | 31,37 |
| ORLOV A A            | 45,46, | 7     | POPOVA T YA         | 62     | RINKEVICHYUS B S  | 49    |
|                      | 47,48, | 57    | POPOVICHEV V I      | 23     | RIVLIN I A        | 26    |
|                      | 57     | 35,52 | PORNOY YE*L         | 3      | RODE A V          | 62    |
| ORLOV P V            | 49     | 20    | POYZNER B N         | 43     | RODIONOV A N      | 37    |
| ORLOV V K            | 23     | 38,39 | PRAVILOV A M        | 15     | ROLDUGIN V I      | 12    |
| ORLOVSKIY V M        | 7      | 2     | PREOBRAZHENSKIY N G | 14,62  | ROMANENKO P F     | 37    |
| OSADCHEV L A         | 31     | 49    | PRIVALOV V YE       | 52     | ROMANENKO V I     | 40    |
| OSADCHUK YA V        | 29     | 13    | PROKHOROV A M       | 4,10,  | ROMANOV YU F      | 38    |
| OSELEDCHIK YU S      | 27     | 44    |                     | 17,18, | ROTSHTEYN M YE    | 34    |
| OSIKO V V            | 4      | 1     |                     | 19,27, | ROYTBERG V S      | 25    |
| OSIPOV V V           | 7,54   | 45,46 |                     | 31,41  | ROZHANSKIY I M    | 18    |
| OSTAPCHENKO YE P     | 11     | 22    | PROKHOROVA I T      | 2      | ROZOV B S         | 50    |
| OSTAPENKO A M        | 35     | 38    | PROTAS I M          | 58     | RUBIN A B         | 28    |
| OVCHAR V V           | 36     | 60    | PROTASOV S P        | 28     | RUBIN L B         | 28    |
| OVECHKIS YU N        | 38     | 22,23 | PROTOPOPOV V V      | 24     | RUBININA N M      | 21    |
| OZERENSKIY A P       | 31     | 54    | PROTSENKO YE D      | 13     | RUBINOV A N       | 41    |
|                      |        | 28    | PROVOROV A S        | 9      | RUDNEVSKIY N K    | 49    |
|                      |        | 8     | PROZUMENT E B       | 51     | RUDNITSKIY A L    | 48    |
|                      |        | 28    | PSHENICHNIKOV S M   | 19     | RUPASOV A A       | 59    |
|                      |        |       |                     |        |                   |       |

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|------------------|------|--------------------|-------|--------------------|--------|------------------|--------|
| RUSETSKIY A N    | 22   | SEDOV L V          | 32    | SHIKANOV A S       | 1,59,  | SLIVKA L K       | 18     |
| RUSINOWICZ T     | 61   | SELEZNEV V A       | 37    |                    | 62     | SMIRNOV G I      | 21     |
| RYABCHENKO V E   | 34   | SELEZNEV V N       | 35,37 | SHIROKIKH A P      | 14     | SMIRNOV V L      | 29     |
| RYABCHIKOVA V P  | 49   | SEL'MAN V M        | 3     | SHISHAYEV A V      | 19     | SMIRNOV V N      | 58     |
| RYABCHUN A M     | 39   | SEM M F            | 12    | SHKLYAYEVA I S     | 49     | SMIRNOV V V      | 41     |
| RYABOV YE A      | 7    | SEMAK D G          | 35    | SHLYAPNIKOV I V    | 49     | SMIRNOV YE A     | 9      |
| RYABOVA R V      | 40   | SEMENCHINSKIY S G  | 54    | SHMAL'KO A V       | 29     | SMIRNY V V       | 31     |
| RYABOV A YA      | 55   | SEменов G B        | 39    | SHMAREV YE K       | 39     | SMOLENSKIY G A   | 31,55  |
| RYABTSEV A N     | 61   | SEменов V I        | 24    | SHOSHEVA M         | 39     | SOBOLEV N N      | 13     |
| RYABTSEV G I     | 3    | SEMIETOV S A       | 31    | SHOTOV A P         | 3      | SOKOLOV V A      | 44     |
| RYADCHIKOV V YE  | 48   | SEMIKHIN I A       | 17    | SHTAN'KO A YE      | 40,50  | SOKOLOVA L B     | 30     |
| RYBAKOV B V      | 49   | SEREBRYAKOV G S    | 49    | SHTEMENKO L S      | 49     | SOKOLOVSKAYA A I | 22     |
| RYBALTOVSKIY A O | 62   | SERGEYEV A B       | 16    | SHTYEN M S         | 46     | SOLOGUB V P      | 6      |
|                  |      | SERIKOV R I        | 12    | SHUMIKHRAST L      | 33     | SOLOMAKHA D A    | 55     |
| S                |      | SHABANOV V F       | 19,55 | SHUVALOV L A       | 55     | SOLOUKHIN R I    | 7,8,9, |
| SACHKOV K N      | 49   | SHABARSHIN V M     | 42    | SHUVALOV S M       | 60     |                  | 12,14, |
| SADOWSKI M       | 61   | SHAKIROV A KH      | 38    | SHVARTS K K        | 48,54, |                  | 16,44, |
| SAFRONOV V A     | 2    | SHALAYEV V I       | 47,50 |                    | 65     |                  | 46,65  |
| SAFRONOVA U I    | 60   | SHALDIN YU V       | 54    | SIDORIN A V        | 58     | SOLOV'YEV A P    | 23     |
| SAKHAROV I M     | 35   | SHALLYGINA T A     | 31    | SIDOROV YU S       | 17     | SONIN A S        | 44     |
| SALIVON G I      | 52   | SHANDYBINA G D     | 58    | SILAYEVA N B       | 3      | SOPINA N P       | 19     |
| SAL'KOVA YE N    | 38   | SHARKOV B YU       | 60    | SILENOK A S        | 59     | SOROKA S I       | 30     |
| SALYADINOV V S   | 58   | SHARKOV V F        | 12    | SILIN V P          | 59     | SOROKIN A R      | 6      |
| SAMOKHIN A A     | 57   | SHARLAY S F        | 4     | SIL'NOV S M        | 60     | SOROKIN A V      | 55     |
| SAMOKHVALOV A A  | 37   | SHATALIN I D       | 8     | SINEL'NIKOV S P    | 2      | SOSKIN M S       | 18,37, |
| SAMOKHVALOV B V  | 49   | SHAYTANOV S P      | 40    | SINEL'SHCHIKOV V A | 9      |                  | 38,39  |
| SAMOYLOV M S     | 2    | SHAYTSAN YA F      | 19    | SINITSYN G A       | 2      | SOTSKIY B A      | 26     |
| SAMSON A M       | 25   | SHCHAVELEV O S     | 48    | SINITSYN G V       | 5      | SPASIN S B       | 11     |
| SAPRYKIN E G     | 21   | SHCHELEV M YA      | 5     | SINITSYN I G       | 27     | SPIRIDONOV V V   | 15     |
| SARKISOV O M     | 42   | SHCHERBACHENKO A M | 17,18 | SINITSYNA Z A      | 42     | STARIK A I       | 12     |
| SARKISOV S E     | 2    | SHCHERBAKOV I A    | 37    | SINIY I G          | 54     | STARINSKIY V N   | 10     |
| SARZHEVSKIY A M  | 5    | SHCHERBAKOV YE A   | 4     | SKACHKOV A N       | 42     | STAROBOGATOV I O | 54     |
| SAVCHENKO A N    | 44   | SHELEPIN L A       | 19,31 | SKLIZKOV G V       | 1,59,  | STARODUBTSEV E V | 38     |
| SAVEL'YEV A D    | 41   | SHELOPUT D V       | 12,27 | SKLYAROV O K       | 62     | STARODUBTSEV N F | 40     |
| SAVEL'YEV V I    | 50   | SHEVCHUK B A       | 24    | SKOROBOGATOV B S   | 55     | STARTSEV A V     | 14     |
| SAVIN V V        | 7,10 | SHEVELEVA T YU     | 53    | SKRINSKIY A N      | 57     | STASEL'KO D I    | 40     |
| SAVOSTIN P I     | 50   | SHEVELEVICH R S    | 48    | SKULACHENKO S S    | 37     | STEFANOVICH S YU | 22     |
| SAVA V A         | 25   | SHEVEL'KO A P      | 2     | SKVORTSOV M N      | 49     | STEJSKAL A       | 44     |
| SEDOV B M        | 4    | SHIBAYEV I N       | 61    | SLESAREV M V       | 5      | STEPANOV A I     | 4      |
|                  |      |                    | 44    |                    | 43     | STEPANOV B I     | 47     |

|                  |        |                     |    |                  |        |                  |        |
|------------------|--------|---------------------|----|------------------|--------|------------------|--------|
| STEPANOV B M     | 17, 43 | I A L ' R O Z E V L | 14 | TRUBETSKOY YU V  | 30     | VASIL' TSOV V V  | 11     |
| STEPANOV S I     | 44, 45 | TARANENKO V B       | 18 | TSAREV P P       | 2      | VASIL' YEV B A   | 50     |
| STEPANOV V A     | 38, 39 | LARSENKO V F        | 10 | TSARFIN V YA     | 50     | VASIL' YEV G K   | 14     |
| STEPANOV YU YU   | 9      | TARASHCHENKO D I    | 36 | TSIBULYA A B     | 16, 18 | VASIL' YEVA A N  | 9      |
| STINSER YE P     | 7      | TARASOV V M         | 1  | TSIKIN B G       | 23     | VASIL' YEVA I A  | 9      |
| STOLOV A L       | 31     | TARTAKOVSKIY I I    | 21 | TSKHADADZE Z S   | 39     | VASIL' YEVA N A  | 17     |
| STOLYAROV S N    | 25     | TEKAYEV E B         | 39 | TSUKERMAN V G    | 31, 34 | " S ' K O V S T  | 35     |
| STRIZHEVSKIY V L | 26     | TELAGIN A YU        | 43 | TSVETKOV M YU    | 1      | VEDENOV A A      | 7      |
| STUEHMER G       | 22     | TELITSYN N A        | 34 | TSVETKOVA K B    | 34     | VENEDIKOV A      | 32     |
| STURMAN B I      | 19     | TEN V P             | 3  | TUCHIN V V       | 13, 62 | VENEVTSSEV YU N  | 22     |
| SUBBOTIN L K     | 57     | TER-POGOSYAN A S    | 6  | TUMKEVICHYUS K K | 54     | VENGLYUK V I     | 4      |
| SUCHKOV A F      | 15     | TER-POGOSYAN P A    | 6  | TUPENEVICH P A   | 55     | VENITSKIY V N    | 55     |
| SUCHKOV A I      | 9      | TIKHOMIROV S V      | 4  | TURKEVICH YU G   | 45     | VESEL' YEV V M   | 49     |
| SUKHANOV I I     | 52     | TIKHONCHUK V T      | 59 | TURYANITS A I I  | 35     | VIGASIN A A      | 57     |
| SUKHANOV V B     | 15     | TIKHONOV B A        | 16 | TUR'YANSKIY A G  | 3      | VILESOV F I      | 15     |
| SUKHAREV S A     | 5      | TIKHONOV YE A       | 5  | TYCHINA I I      | 52     | VINETSKIY V L    | 39     |
| SUKHAREVA L K    | 53     | TIMOFEYEV V P       | 20 | U                |        | VINOGRADOV G K   | 50     |
| SUKHORUKOV A P   | 22     | TIMOFEYEV YU P      | 50 | UDARTSEV A M     | 42     | VINOGRADOV YE A  | 50     |
| SURDUTOVICH G I  | 24     | TISHCHENKO V N      | 8  | ULYAROV P I      | 57     | VINOGRADOVA A A  | 21     |
| SUSLOV A I       | 42     | TKACHENKO L P       | 45 | UMAROV G YA      | 9, 44  | VITKOVSKIY V V   | 45     |
| SUYAZOV N V      | 60     | TODIRASHKU S S      | 26 | URIN B M         | 9      | VITSHAS A F      | 7      |
| SUYNOV V KH      | 21     | TODOROV T A         | 39 | USACHEV B F      | 43     | VODOVATOV I A    | 40, 50 |
| SVE TLICHNYY I B | 34     | TOKARCHUK D N       | 35 | USHANOV V ZH     | 42     | VOLK T R         | 55     |
| SVIRIDENKOV E A  | 12     | TOLKACHEV A V       | 49 | USPENSKIY A B    | 42     | VOLKOV A YU      | L#     |
| SYCHEV A A       | 42, 44 | TOLMACHEV A I       | 18 | USPENSKIY A V    | 57     | VOLKOV I V       | 50     |
| SYMERA T P       | 18     | TOLMACHEV G N       | 11 | UUSMAA P A       | 65     | VOLODINA V I     | 23, 36 |
| SYRBU N N        | 30     | TOMASHCHIK A K      | 43 | V                | 30     | VOLOSOS V D      | 17     |
| SYSUN V V        | 17     | TORGOMYAN G B       | 10 | VAKHMYANIN K P   | 4      | VOLYNKIN V M     | 20     |
| SYUVALA R YA     | 12     | TOROPOV A K         | 55 | VALASHOV I F     | 2      | VOROB' YEV N S   | 4      |
| SZYDLAK J        | 30     | TOTSKHALISHVILI N V | 39 | VANIKOV A V      | 42     | VORONTSOV S S    | 17     |
| SZYDLOWSKA J     | 61     | TREPAKOV V A        | 55 | VARDOSANIDZE Z V | 39     | VORON' KO YU K   | 51     |
|                  | 37     | TRET'YAKOV V M      | 34 | VARIKASH V M     | 55     | VOROZHEYKINA L F | 5      |
|                  |        | TRIEBEL W           | 1  | VARNAVSKIY O P   | 19     | VORZOBONA N D    | 40     |
|                  |        | TRIFONOV YE D       | 27 | VASHCHUK V I     | 5      | VOYTOVICH A P    | 20     |
| TABRIN V N       | 2      | TROFIMOV N P        | 15 | VASILENKO L S    | 5, 52  | VUKOVICH S       | 59     |
| TACHKOV A N      | 65     | TROITSKIY YU V      | 15 |                  |        |                  |        |
| TAKLAYA A A      | 33     | TROSHIN B I         | 6  |                  |        |                  |        |
| TALANOV V I      | 21     | TROSHKIN S B        | 17 |                  |        |                  |        |

|                  |        |                    |        |                |        |
|------------------|--------|--------------------|--------|----------------|--------|
| VYDRIN L V       | 35     | VERMAKOVA A N      | 51     | ZHBANKOV R G   | 59     |
| VYGODIN V A      | 27     | YEROKHOVETS V K    | 35     | ZHELNOV B L    | 42     |
| VYSKUB V G       | 50     | YERSHOV V S        | 45     | ZHERIKHIN A N  | 63     |
| VYSOTSKIY M G    | 50     | YERHOVA T A        | 47     | ZHGUN S A      | 18     |
|                  |        | YESEPKINA N A      | 50     | ZHUKOV V V     | 12     |
| W                |        | YEVSTRATOV N A     | 31     | ZIANGIROVA G G | 29     |
| WAVER J          | 61     | YEVTUKHOVICH P G   | 41     | ZIMIN YU S     | 7      |
| WEIGMANN H J     | 22     | YUDIN I I          | 49     | ZINOV'YEV A V  | 56     |
| WOJTCZAK J       | 42     | YUDINA L P         | 34     | ZINOV'YEV P V  | 3      |
| WOLEJKO L        | 23     | YUNDEV D M         | 11     | ZIUZIA J       | 36     |
| WOLINSKI W       | 6      | YUNOVICH A E       | 3      | ZMITRENKO N V  | 63     |
| WOLOWSKI J       | 60, 61 | YURSHIN B YA       | 19     | ZOLOTOV YE M   | 19, 31 |
| WOLSKI J         | 61     | YUSHIN A S         | 29     | ZOREV N N      | 1      |
|                  |        | YUTSIS G A         | 54     | ZOSIMOV A V    | 46     |
| Y                |        |                    |        | ZUBKOVA V S    | 19     |
| YACHNEV I L      | 14     | Z                  |        | ZUBOV V A      | 4C     |
| YAKOBI YU A      | 7, 16, | ZABELLO YE I       | 5      | ZUYEV B K      | 55     |
|                  | 44     | ZABELYSHENSKIY V I | 50     | ZUYEV V S      | 14     |
| YAKOVLEV G S     | 20     | ZAGORSKIY YA T     | 45     | ZUYEV V YE     | 32     |
| YAKOVLEV V A     | 4      | ZAGULOV F YA       | 10     | ZVEREV G M     | 21     |
| YAKOVLEV YE B    | 58     | ZAKHARCHENKO V M   | 47, 50 | ZVEREV V A     | 17     |
| YANKOV V P       | 50     | ZAKHARENKO YU G    | 45     | ZVORYKIN V D   | 56     |
| YANKOVSKIY A A   | 51     | ZAKHARENKO YU A    | 62     |                |        |
| YANSON I K       | 52     | ZAKHAROV V M       | 36     |                |        |
| YARMOSH N A      | 35     | ZAKHAROV V P       | 58     |                |        |
| YASHKIR YU N     | 22     | ZAMKOV A V         | 19     |                |        |
| YASHUMOV I V     | 3      | ZAPESOCHEV I P     | 58     |                |        |
| YEFREMOV N M     | 16     | ZAPOROZHCHENKO R G | 25     |                |        |
| YEGOROV A A      | 7      | ZAPOROZHCHENKO V A | 25     |                |        |
| YEGOROV V N      | 17     | ZARETSKIY D F      | 62     |                |        |
| YEGOROVA T K     | 43     | ZASAVITSKIY I I    | 3      |                |        |
| YELISEYEV P G    | 3      | ZAYCHENKO O V      | 30     |                |        |
| YEMEL'YANOVA I V | 45     | ZAYTSEV A I        | 27     |                |        |
| YEPIFANOV A S    | 58     | ZAYTSEV G F        | 1      |                |        |
| YEFIKHIN V N     | 13     | ZAYTSEV YU I       | 6      |                |        |
| YEREMENKO V V    | 55     | ZBEZHNEVA S G      | 17     |                |        |
| YEREMIN V I      | 31     | ZDANOVICH S B      | 25     |                |        |
| YERMACHENKO V M  | 13     | ZEGE E P           | 32     |                |        |
|                  |        | L'DOVICH B YA      | 22, 23 |                |        |

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