

REPORT DOCUMENTATION PAGE

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RPPR Final Report
as of 23-Jun-2022

Agency Code: 21XD

Proposal Number: 77309CHRIP

Agreement Number: W911NF-21-1-0021

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EIN: 223011455

Report Date: 27-Mar-2022

Date Received: 21-Jun-2022

Final Report for Period Beginning 28-Dec-2020 and Ending 27-Dec-2021

Title: Defense University Research Instrumentation Program (DURIP)

Begin Performance Period: 28-Dec-2020

End Performance Period: 27-Dec-2021

Report Term: 0-Other

Submitted By: Jimmie Oxley

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Distribution Statement: 1-Approved for public release; distribution is unlimited.

STEM Degrees: 2

STEM Participants: 4

Major Goals: Purchase of a GC and sulfur attachment for our isotope ratio MS

Accomplishments: Trained three graduate students

run over 1400 samples

supported present ARO project on Environmental Forensics

Training Opportunities: Three graduate students trained and two gainfully employed

Results Dissemination: The instrument was successfully installed and the work it is supporting is reported to ARO elsewhere.

Honors and Awards: Not relative to this instrument

Protocol Activity Status:

Technology Transfer: Nothing to Report

PARTICIPANTS:

Participant Type: PD/PI

Participant: Jimmie Oxley

Person Months Worked: 1.00

Project Contribution:

National Academy Member: N

Funding Support:

RPPR Final Report
as of 23-Jun-2022

Participant Type: Co-Investigator

Participant: James Smith

Person Months Worked: 1.00

Project Contribution:

National Academy Member: N

Funding Support:

Participant Type: Graduate Student (research assistant)

Participant: Audreyana Nash

Person Months Worked: 5.00

Project Contribution:

National Academy Member: N

Funding Support:

Participant Type: Graduate Student (research assistant)

Participant: Lindsay McLennan

Person Months Worked: 4.00

Project Contribution:

National Academy Member: N

Funding Support:

Participant Type: Graduate Student (research assistant)

Participant: Kendra Kennan

Person Months Worked: 2.00

Project Contribution:

National Academy Member: N

Funding Support:

Partners

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I certify that the information in the report is complete and accurate:

Signature: Jimmie C Oxley

Signature Date: 6/21/22 10:40PM

University of Rhode Island

DURIP 2021

We greatly appreciate the funding for the upgrade GC and sulfur module for our Thermo Isotope ratio mass spectrometer. The award was made in late 2020, and installation was complete by the end of May 2021. In the year since receiving that upgrade we have trained three graduate students on its use. Two have become sufficiently proficient that they have found other employment performing IRMS experiments. In the year since the GC modification, we have run over 1400 samples, most on the project related to DNAN and its fate and tracking in the environment (Environmental Forensics Seeking Linkages Across Unique Chemical Transformations, 77060-CH W911NF21-1-0046). In that joint program with CUNY, a significant amount of time has been spent ensuring that data across both universities are in agreement. To support that need, the URI is performing all soil sample extractions and sending the samples to CUNY. A third batch of samples were sent to CUNY today. In addition to our work on DNAN, reported under the Environmental Forensics project, the GC-IRMS has been used to analyze several hundred picric acid samples manufactured by various improvised methods.