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- 410 Mission Opportunities Enabled by Americium-Fuelled Radioisotope Power Systems—*Hannah Sargeant (Univ. Leicester), Ramy Mesalam (Univ. Leicester), Alessandra Barco (Univ. Leicester), Emily Jane Watkinson (Univ. Leicester), Richard Ambrosi (Univ. Leicester)*
- 411 The Americium Radioisotope Heater Unit—*Richard M. Ambrosi (Univ. Leicester), Ramy Mesalam (Univ. Leicester), Alessandra Barco (Univ. Leicester), Tony Crawford (Univ. Leicester), Chris Bicknell (Univ. Leicester), Gareth Bustin (Univ. Leicester), Emily Jane Watkinson (Univ. Leicester), Hannah Sargeant (Univ. Leicester), Tim Tinsley (National Nuclear Laboratory), Rebecca Sanderson (National Nuclear Laboratory), Mark Sarsfield (National Nuclear Laboratory), Nick Hanigan (National Nuclear Laboratory), Pierre Coquay (European Space Agency), Christophe Fongarland (European Space Agency), Piers Slater (Reef Global)*
- 412 Understanding Material and Fabrication Variables Affecting the Structure and Performance of Platinum Frit Vents for the Light Weight Radioisotope Heater Unit—*Joe OBryant (ORNL), Greg Cox (ORNL), Jose Arregui Mena (ORNL), Kenneth Rex Veach (ORNL), Glenn Romanoski (ORNL), Roger Miller (ORNL)*
- 413 Very Low Power Locomotion System for Small Radioisotope Powered Robotic Lunar Landers—*Kris Bell (Univ. Leicester), Nathan L. Carstens (Univ. Leicester), James M. Critchley (Univ. Leicester), Suzanna J. Cronk (Univ. Leicester), Monica Peeris (Univ. Leicester), Isaac J. M. Waton (Univ. Leicester), Ramy Mesalam (Univ. Leicester), Richard M. Ambrosi (Univ. Leicester)*
- 414 Quantifying Mark Watney's Radiation Dose from a Plutonium-238 Radioisotope Power System in the Martian—*Alexander Q. Gilbert (Colorado School of Mines)*
- 415 Quantitative Particle Analysis of Neptunium-237 Oxides from a Production Environment—*Connor J. Parker (ORNL), Kathryn M. Peruski (ORNL), Samantha K. Cary (ORNL)*
- 416 Elucidation of Thermal Decomposition Mechanisms of Neptunyl Ammonium Nitrate for Neptunium Dioxide Target Production—*Kathryn M. Peruski (ORNL), Connor J. Parker (ORNL)*
- 417 Progress in Fabrication of Silicon Germanium Unicouples—*Billy Li (Jet Propulsion Laboratory), Keith Billings (Jet Propulsion Laboratory), Matthew Dickie (Jet Propulsion Laboratory), Vilupanur A. Ravi (Jet Propulsion Laboratory), Jean-Pierre Fleurial (Jet Propulsion Laboratory)*
- 418 Analysis of Thrust Level Effect on Nuclear Electric Propulsion Mission Trajectory and Spacecraft Mass for Jupiter Rendezvous—*Monica A. Salunkhe (Univ. Alabama, Huntsville), Kunning G. Xu (Univ. Alabama, Huntsville), L. Dale Thomas (Univ. Alabama, Huntsville)*
- 419 Optimization Considerations for Annular Linear Electromagnetic Pumps for Space Nuclear Power and Propulsion—*John E. Foster (Univ. Michigan)*
- 420 High Temperature Fuel Element Thermal Testing for Nuclear Thermal Propulsion Applications—*Jonas Opperman (General Atomics), Hesham Khalifa (General Atomics), Robert Schleicher (General Atomics), Gerald Lilienthal (General Atomics)*
- 421 Radiation Resistance Evaluation of Carbon Nanocomposites Using Molecular Dynamics Simulation—*Fuyue Li (Georgia Tech), Mary Woodrough (Georgia Tech), Chaitanya Deo (Georgia Tech)*
- 422 Effect of Alloy Composition and Processing on the Microstructure of Iridium Alloys—*G. Muralidharan (ORNL), G. R. Romanoski (ORNL)*
- 423 Cross-Section Generation for Modeling Polyethylene Composites in HZETRN—*Mary Woodrough (Georgia Tech), Fuyue Li (Georgia Tech), Chaitanya Deo (Georgia Tech)*
- 424 Intermediate to High Strain Rate Tensile Testing of DOP-26 Iridium Alloy—*Yanli Wang (ORNL), Charles Hawkins (ORNL), Roger G. Miller (ORNL), Glenn R. Romanoski (ORNL)*
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- 429 Lessons Learned: Design of Novel Radioisotope Power Systems—*Matthew Johnson (Univ. Dayton Research Institute)*
- 430 Systems Engineering of Novel Radioisotope Power Systems—*Christopher Venturella (Univ. Dayton Research Institute)*
- 431 The Validation Testing of Novel Radioisotope Power System Designs—*Kenton Sherick (Univ. Dayton Research Institute), Boyd Allen Tolson (Univ. Dayton Research Institute)*
- 432 Managing Innovative Radioisotope Power System Design Projects—*Jackie Maddox (Univ. Dayton Research Institute), Chadwick Barklay (Univ. Dayton Research Institute)*

- 433 Terrestrial Isotope Activation for Low-Cost Testing of Next Generation Space Radioisotope Power Systems—*Samuel Piper (Atomos Nuclear and Space Corp.), Lucas Beveridge (Atomos Nuclear and Space Corp.)*
- 434 Harnessing Neptunium Spectral Features to Monitor Valence Change During ^{238}Pu Processing—*Sara E. Gilson (ORNL), Luke R. Sadergaski (ORNL), Hunter B. Andrews (ORNL), Adam J. Parkison (ORNL)*
- 435 Impurity Analysis Using Laser-Induced Breakdown Spectroscopy for the Plutonium-238 Supply Program—*Hunter B. Andrews (ORNL), Luke R. Sadergaski (ORNL)*
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- 440 Aerojet Rocketdyne Small Radioisotope Thermoelectric Generator Concept Utilizing SiGe Unicouples—*S. Hunter (Aerojet Rocketdyne), L. Gard (Aerojet Rocketdyne)*
- 441 Plutonium-238 Supply Research, Development, and Demonstration Strategy and Achievements at Oak Ridge National Laboratory—*Kristian Myhre (ORNL), Adam Parkison (ORNL), Joe McVeigh (ORNL), Joe Hough (ORNL)*
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- 466 Beta Ion Engine for CubeSats—*Mark Stone (City Labs), Peter Cabauy (City Labs), John E. Foster (Univ. Michigan)*
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- 472 Zeno Technology Development Program Overview—*J.R. Matthews (Zeno Power Systems)*
- 477 Revival and Technology Transfer of $^{90}\text{SrTiO}_3$ Production for Heat Source Applications—*Christopher E. Whiting (Univ. Dayton), Matthew O'Hara (PNNL), Stephen L. Gunderson (Univ. Dayton), Sergey Sinkov (PNNL), Chadwick D. Barklay (Univ. Dayton), Jeffrey Katalenich (PNNL), Brian Collins (PNNL), Jacob R. Matthews (Zeno Power Systems)*
- 482 Radiation Modeling of Z1: Validation of a Novel Radioisotope System—*T.R. Riley (Zeno Power Systems), J.R. Matthews (Zeno Power Systems), M.T. Athon (PNNL), B.A. Collins (PNNL), K.L. Gervais (PNNL), J.A. Katalenich (PNNL), D.A. Koch (PNNL), M.K. Murphy (PNNL), M.J. O'Hara (PNNL), C.L. Painter (PNNL), B.D. Pierson (PNNL), S.H. Swenson (PNNL)*
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- 507 Using the External Gelation Sol-gel Method to Create Cerium Uranium Oxides as Potential Surrogates for Americium Uranium Oxides in the Context of European Radioisotope Power Systems—*E.J. Watkinson (Univ. Leicester), R. Wilbraham (Lancaster Univ.), M.J. Sarsfield (National Nuclear Laboratory), C. Boxall (Lancaster Univ.), R.M. Ambrosi (Univ. Leicester)*

- 512 Assessing Alternatives for Pu-238 in Radioisotope Heater Units—*Laura Holewa (Westinghouse Electric Co.), Alexander Rodgers (Westinghouse Electric Co.), Cenk Guler (Westinghouse Electric Co.)*
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- 529 Pu-238 Production Progress at Idaho National Laboratory from December 2022 to December 2023—*William S. Green (INL), Andrew J. Zillmer (INL), Jill R. Mitchell (INL), Erik Rosvall (INL), Brittany J. Grayson (INL), Ryan L. Marlow (INL), Austen D. Fradeneck (INL), Jonathan K. Foster (INL), Kevin M. Geddes (INL), Mark A. Hill (INL), Paul F. O'Donnell Jr. (INL)*
- 535 Processing of Tritium Sources from Surface to Space—*Krystine Pimentel (City Labs), Peter Cabauy (City Labs), Jesse Grant (City Labs), Mark Stone (City Labs), Thomas E. Adams (Naval Surface Warfare Center)*
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- 554 Pulse-Reverse Plating of Nanocomposite Diffusion Barrier Coatings for Radioisotope Thermoelectric Generators—*Hannah Hilton-Tapp (Univ. Leicester), Jayan Patel (Univ. Leicester), David Weston (Univ. Leicester), Karl Ryder (Univ. Leicester), Ramy Mesalam (Univ. Leicester)*
- 560 Recent Advancements in the Development, Manufacturability and Lifetime Testing of GPHS Heritage-like SiGe Unicouples Using SiGe and SiMo Materials Prepared by Spark Plasma Synthesis—*Jonathan Pierce (Johns Hopkins APL), Jake Ballard (Johns Hopkins APL), Richard Ung (Johns Hopkins APL), Tim Holgate (Johns Hopkins APL), Rasdip Singh (Soal Technologies), Mousumi Mitra (Univ. Virginia), Scott Misture (Alfred Univ.), Joseph Poon (Univ. Virginia), Timothy Erickson (Johns Hopkins APL), Paul Ostdiek (Johns Hopkins APL), Rama Venkatasubramanian (Johns Hopkins APL)*
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- 573 Assembly, Integration, and Initial Test Results of a Stirling Radioisotope Power System Generator Testbed—*Ernestina Wozniak (NASA Glenn Research Center), Salvatore Oriti (NASA Glenn Research Center), Natasha Jackson (HX5 Sierra), Tyler Steiner (NASA Glenn Research Center)*
- 578 High Efficiency Stirling Radioisotope Power System Development and Mission Application—*Leo Gard (Aerojet Rocketdyne), Erik Scougal (Aerojet Rocketdyne), Aaron Poehls (Aerojet Rocketdyne), Erich Soendker (Aerojet Rocketdyne), Hannah Sargeant (Space Park Leicester), Emily Jane Watkinson (Space Park Leicester), Ramy Mesalam (Space Park Leicester), Richard Ambrosi (Space Park Leicester), Alessandra Barco (Space Park Leicester), Marzio Mazzotti (Space Park Leicester)*
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623 Radioisotope Power Systems: European Update

624 The European Radioisotope Power Systems Program: Updates and Synergies—*Richard M. Ambrosi (Univ. Leicester), Ramy Mesalam (Univ. Leicester), Alessandra Barco (Univ. Leicester), Emily Jane Watkinson (Univ. Leicester), Hannah Sargeant (Univ. Leicester), Chris Bicknell (Univ. Leicester), Tony Crawford (Univ. Leicester), Rob Tute (Univ. Leicester), Gareth Bustin (Univ. Leicester), Tim P. Tinsley (National Nuclear Laboratory), Rebecca Sanderson (National Nuclear Laboratory), Mark Sarsfield (National Nuclear Laboratory), Nick Hanigan (National Nuclear Laboratory), Pierre Coquay (European Space Agency), Christophe Fongarland (European Space Agency), Kevin Simpson (European Thermodynamics), Richard Tuley (European Thermodynamics), Marie-Claire Perkinson (Airbus), Robert Hopton (Airbus), Aled Richings (AWE), Tony Warkup (AWE), Chris Bell (AWE), Piers Slater (Reef Global), Frederic Lattwein (Arianegroup), Daniel Freis (European Commission), Rudy J. M. Konings (European Commission), Steven R. Oleson (NASA Glenn Research Center), Paul C. Schmitz (Power Computing Solutions), Elizabeth Turnbull (NASA Glenn Research Center), Scott Wilson (NASA Glenn Research Center)*

631 Ensuring the Safety of European Space Missions with Radioisotope Power Systems—*Frédéric Lattwein (ArianeGroup), David Le Falcher (European Space Agency), Cédric Lemarié (ArianeGroup), Remy Croxatto (ArianeGroup), Yannick Herlem (ArianeGroup), Denis Rebuffat (European Space Agency), Pierre Coquay (European Space Agency), Christophe Fongarland (European Space Agency), Grzegorz Ambroszkiewicz (European Space Agency)*

637 Defense in Depth for Radioisotope Power Systems for Space Applications—*Alexander Q. Gilbert (Zeno Power Systems), Jacob R. Matthews (Zeno Power Systems)*