

PAMIR ALPAY

1. *United Technologies Corporation Aerospace Systems, United Technologies Aerospace Systems [PI (25%) and Director, Co-PIs R.J. Hebert, S.L. Suib, \$1,000,000 (base) 02/01/2016 – 01/31/2021; \$440,000 supplement (M. Aindow) 01/01/2017]*

YANG CAO

1. *MURI-Tracking, Diagnosing and Impeding Dielectric Breakdown in Polymers, ONR, \$7.5M, 8/1/2017-7/31/2022*
2. *NSF Phase I i/UCRC University of Connecticut Site: Center for Novel High Voltage/Temperature Materials and Structures (HVT), \$300k, Feb.2017-Mar.-2019*
3. *NSF HVT Collaborative Research - Marmon, USi, G&W Electric, , \$80k, Feb.1 2017-Feb.28, 2018*
4. *Computation of Gas Dynamics and Measurement of Gas Temperature in Low Voltage Circuit Breakers, Sponsor: General Electric Company, \$100k, 1/1/2017-12/30/2017*
5. *Computation of Gas Dynamics and Measurement of Gas Temperature in Low Voltage Circuit Breakers, Sponsor: General Electric Company, \$100k, 1/1/2018-12/30/2018*
6. *Grid Hardening against Geomagnetic Disturbance, Eversource, \$50k, 1/1/2017-12/30-2017*
7. *Grid Hardening against Geomagnetic Disturbance, Eversource, \$50k, 1/1/2018-12/30-2018*
8. *Nanostructured Dielectric Insulation for High Power Density Next Gen Propulsion Motor, Sponsor: ONR (N00014-15-1-2413), \$600k, Performance Period: 05/15/2015 – 05/14/2019*
9. *ONR DURIP Laser Induced Pulse Pressure (N00014-16-1-2885), ONR, \$100k, 7/15/2016-9/30/2018*
10. *Promotion of Ethylene-Propylene Rubber Cable Technology, Sponsor: Exxon-Mobil, ECC, Kerite, Okonite, Lion-Copolymer, \$2,133k, Performance Period: 11/01/98 - 12/31/18*
11. *Investigation of New Dielectric Fluid as SF6 alternative (Phase 1), Sponsor: G&W Electric., \$30k Period: 03/24/2016 - 3/14/2017; Phase II: \$35k, 1/1/2018-12/30/2018,*
12. *Collaboration on HVDC for Aerospace Applications, UTRC/NASA, \$100k, 1/1/2018-12/30/2018*
13. *Rational Design of Advanced Polymeric Capacitor Films via Synergistic Computations, Synthesis and Characterization, ONR, \$1.05M, 6/1/2016-12/30/2018*

MAURICE GELL

Ultra-High Temperature Thermal Barrier Coatings, DOE/HiFunda Phase IIA, \$800K, April 2015 – April 2017

MARTIN HAN

1. *Focused Ultrasound Neural Stimulation for Spinal Cord Injury, Dept. of Defense-Army, CDMRP (Role: Co-PI), \$308,450 (UConn), 8/15/2017 – 5/14/2020*
2. *Towards Clinical Translation of Penetrating Multisite Device for Cochlear Nucleus, NIH/NIDCD (Role: PI), 3/19/2015 – 2/29/2020*

BRYAN HUEY

1. *MRI-Development: Tomographic Atomic Force Microscopy*, NSF DMR-MRI-Development \$998,939, 9/1/2017-8/31/2020
2. The project is developing a dedicated tomographic AFM system for through-thickness nanoscale studies of materials properties.
3. *Determination of Real-world Power Change Rates in PERC Modules using Novel Characterization Techniques*, DOE-PVRD2, \$210,000, 10/1/2017-9/30/2020
4. This project develops and applies new methods to investigate the causes of solar cell degradation in next generation 'PERC' solar cells.
5. *Network modeling for rapid optimization of Lifetime, Efficiency and CapEx of PERC solar cells*, Bay Area Photovoltaic Consortium, \$32,000, 9/1/2016-8/31/2018
6. Project involves nanoscale assessment of degradation at interfaces in conventional and next generation solar cells.
7. *Ferroelectric Domain Dynamics in Ultra Thin Film Heterostructures*, muRata Inc, \$90,000, 9/1/2014-8/31/2018
8. Project is developing unique measurements for measuring electromechanical properties of next generation capacitors.

GEORGE ROSSETTI

1. *Fluorite-Structured Oxides: A New Class of Multifunctional Materials*, George Rossetti, DoD/Army Research Office, \$240,000, 9/15/15 – 9/14/18, (renewal for period 11/15/17 – 9/14/18)

MONTGOMERY SHAW

1. *Multi-functional hybrid thin films with a well-aligned microstructure through flow induced orientation*, (w/ Luyi Sun, PI); NSF-CMMI; \$355,920; 6/1/2016 - 5/31/2019

STEVEN SUIB

1. *Porous Transition Metal Oxides: Synthesis, Characterizations, and Catalytic Activity*, Department of Energy, \$725,000, 2/1/2012-8/15/2018
2. *Hydrothermal Manufacturing of Nano-Array Based Low Temperature Diesel Oxidation Catalysts*, National Science Foundation, \$1,458,199, 10/1/2013-9/30/2018
3. *Ceramic Fiber Composites*, NASA, \$300,000, 9/1/2016-8/31/2018
4. *UTAS Center for Excellence: Subproject: Quasicrystal-Strengthened Alloys for Structural Applications and Coatings*, PI: P. Alpay, United Technologies – Aerospace Systems, \$411,911, 1/1/2017-12/31/2019
5. *Materials Research at UCONN*, UConn Academic Plan, \$600,00, 9/1/2016 – 8/31/2019
6. *Thin Film Coatings*, General Electric, \$150,000, 4/1/2016-12/31/2017
7. *Metal Oxide Nano-Array Catalysts*, PI – P. Gao, Department of Energy, \$1,210,000, 9/1/2016-8/31/2018
8. *Characterization of Wires*, Loos and EDA, \$125,000, 8/1/2016-8/22/2018
9. *Microscopy Studies of Materials*, FEI, \$200,00, 4/1/2016-3/30/2018

LUYI SUN

1. *A New Class of Heterogeneous Catalysts Based on Single-Layer Nanosheets* (Sole PI), ACS PRF, \$110,000, 1/1/2017-8/31/2019
2. *Bio-inspired Mechanochromic Devices for Aerospace Applications* (Sole PI), Connecticut Space Grant Consortium, \$19,000, 6/1/2017-8/15/17