



# SMALL BUSINESS INNOVATION RESEARCH AWARDS

<b>Topic # / Activity</b>	<b>Topic Description</b>
<i>NSF SBIR</i>	<i>Heat Spreader using Nanofluid Oscillating Heat Pipe</i>
<i>AF112-057</i>	<i>AFRL/RV - CY 2012-2018</i> Next-Generation Micro-chip Carrier for Cooling of Satellite Payload Electronics
<i>OSD12-EP6</i>	<i>OSD/ONR - CY 2013-2017</i> Cylindrical Geometry Energy Storage Cooling Architectures
<i>N131-028 (IWS)</i>	<i>Navy/NAVSEA - CY 2013-2014</i> Thermal Management Improvements for Transmit/Receive Modules
<i>AF151-094</i>	<i>AFRL/RV - CY 2015-2018</i> Passive High Power Density Structural Heat Spreader
<i>AF161-086</i>	<i>AFRL/RV - CY 2016-2019</i> Solid State Power Amplifier Thermal Management
<i>A161-022</i>	<i>Army/CERDEC - CY 2016-2019</i> Development of Lightweight Heat Exchangers for Man-Portable Battery Recharging System
<i>N161-052</i>	<i>Navy/NAVSEA - CY 2016-2018</i> Advanced Heat Spreader Technology for GaN MMICs
<i>NASA Z2.01</i>	<i>NASA - CY 2018-2019</i> A Next Generation Spacecraft Heat Rejection Systems
<i>MDA182-020</i>	<i>MDA - CY 2018-2019</i> High Power Density Source for Space Applications
<i>AF182-054</i>	<i>AFRL - CY 2018-2019</i> Li-Ion Battery Thermal Runaway Propagation and Containment Solutions
<i>NASA A1.10</i>	<i>NASA - CY 2019-2020</i> A Multifunctional Hypersonic Leading Edge with Integrated Thermal Management
<i>N192-127</i>	<i>ONR - CY 2019-2020</i> High Heat Flux Thermal Management Technologies for Aluminum Decks
<i>A20-007</i>	<i>AFRL - CY 2020</i> Compact Thermal Solutions through Advanced Manufacturing Techniques
<i>NASA S3.06</i>	<i>NASA - CY 2020</i> Oscillating Heat Pipe Enhanced Thermal Wadi
<i>NASA S1.09</i>	<i>NASA - CY 2020</i> High Performance Cryogenic Two-Phase Heat Spreader
<i>NASA Z1.03</i>	<i>NASA - CY 2020</i> A High Temperature Heat Rejection System for Fission Power Generation