

SwRI Patents

2/10/2012

For further information,
contact the **Communications Department** at action67@swri.org.

| Patent No. | Date of Issue | Title of Invention | Inventor(s) | Assignee |
|-------------------|----------------------|--|--|-----------------|
| 8,108,123 | 1/31/2012 | Sliding Mode Control System for Internal Combustion Engine | Jayant V. Sarlashkar, Theodore M. Kostek, Ryan Roecker, Gary D. Neely, Shizuo Sasaki | SwRI |
| 8,098,065 | 1/17/2012 | Magnetostrictive Sensor Probe for Guided-Wave Inspection and Monitoring of Wire Ropes/Cables and Anchor Rods | Hegeon Kwun, Albert J. Parvin Jr., Erika Christine Laiche | SwRI |
| 8,098,065 | 1/17/2012 | Magnetostrictive Sensor Probe for Guided-Wave Inspection and Monitoring of Wire Ropes/Cables and Anchor Rods | Hegeon Kwun, Albert J. Parvin Jr., Erika Christine Laiche | SwRI |
| 8,094,090 | 1/10/2012 | Real-Time Self-Visualization System | James Brian Fisher, Fred Henry Previc | SwRI |
| 8,091,520 | 1/10/2012 | Split-Cycle Engine with Early Crossover Compression Valve Opening | Ford A. Phillips | Sponsored |
| 8,052,723 | 11/8/2011 | Dynamic Posterior Stabilization Systems and Methods of Use | Charles R. Gordon, Corey T. Harbold, Heather S. Hanson, Erik J. Wagner | Sponsored |
| 8,052,398 | 11/8/2011 | Reciprocating Gas Compressor with Speed Modulation of Compressor Driver for Pulsation Avoidance | Klaus Brun, Dennis Tweten, Marbeth Nored | SwRI |
| 8,051,811 | 11/8/2011 | Knock Resistant Split-Cycle Engine | Ford A. Phillips | Sponsored |
| 8,050,489 | 11/1/2011 | Autoradiography-Based Differential Wear Mapping | Douglas C. Eberle, Craig M. Wall, Martin B. Treuhaft | SwRI |
| 8,034,459 | 10/11/2011 | Erosion Resistant Coatings | Ronghua Wei, Edward Langa, James H. Arps, Christopher Rincon | SwRI |
| 8,029,875 | 10/4/2011 | Plasma Immersion Ion Processing for Coating of Hollow Substrates | Ronghua Wei, Christopher Rincon, James H. Arps | SwRI |
| 8,026,105 | 9/27/2011 | Quantification of Lubricant Reactivity Using Constant Volume Combustion Device | Manfred Amann, Terrence F. Alger II | SwRI |

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| 8,007,848 | 8/30/2011 | Pneumatic Seasoning System | Wayne Garrison, Ross D. Samuels, Glynn R. Bartlett | SwRI |
| 8,006,656 | 8/30/2011 | Split-Cycle Four-Stroke Engine | David P. Branyon, Jeremy D. Eubanks | Sponsored |
| 8,001,769 | 8/23/2011 | Control of SCR System Having a Filtering Device | Zhiyong Wei, Theodore M. Kostek, Christopher A. Sharp | Sponsored |
| 7,994,902 | 8/9/2011 | Cooperative Sensor-Sharing Vehicle Traffic Safety System | Paul A. Avery, Joshua J. Curtis, Reda L. Bouraoui | SwRI |
| 7,992,380 | 8/9/2011 | Emission Control System Implementing Reduction Agent Injection | Zhiyong Wei, Christopher A. Sharp | Sponsored |
| 7,991,533 | 8/2/2011 | Adaptive Reductant Dosing and Emission Control Strategies | Yiqun Huang | SwRI |
| 7,991,448 | 8/2/2011 | Method, Apparatus and System for Removing Motion Artifacts from Measurements of Bodily Parameters | Reuben W. Edgar Jr., August J. Allo Jr., Paul B. Gunneson, Jesus D. Martin, John R. DelFavero, Michael B. Jaffe | Sponsored |
| 7,987,078 | 7/26/2011 | Dynamic modeling of an internal combustion engine operating with multiple combustion modes | Junmin Wang | SwRI |
| 7,979,288 | 7/12/2011 | Automated Interpretation of Medical Prescription Text | Jeff Wilkinson, William Arensman, Nathan Price, John Madrid, Keith Pickens | SwRI |
| 7,968,488 | 6/28/2011 | Two-Dimensional Composite Particle Adapted for Use as a Catalyst and Method of Making Same | James H. Arps, Kent Edward Coulter | SwRI |
| 7,963,259 | 6/21/2011 | Hydro-Mechanical Valve Actuation System for Split-Cycle Engine | Riccardo Meldolesi, Clive Lacy | Sponsored |
| 7,954,463 | 6/7/2011 | Split-Cycle Four-Stroke Engine | David P. Branyon, Jeremy D. Eubanks | Sponsored |
| 7,954,461 | 6/7/2011 | Split-Cycle Four-Stroke Engine | David P. Branyon, Jeremy D. Eubanks | Sponsored |
| 7,952,706 | 5/31/2011 | Multi-channel fiber optic spectroscopy systems employing integrated optics modules | Jian Ling, Joseph N. Mitchell, Michael F. Sullivan, James F. Brennan III, | Sponsored |

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| | | | Mark R. Heistand, Jon Nazemi, William Fraker | |
| 7,948,426 | 5/24/2011 | Detection and Location of Radio Frequency Weapons from High Altitude Glider System | Alfred E. Pevler, Donald R. Van Rheeden, Le Moey Wiebush Jr. | SwRI |
| 7,946,382 | 5/24/2011 | Gas Compressor with Side Branch Absorber for Pulsation Control | Ralph E. Harris, Christine M. Scrivner, Eugene L. Broerman III | SwRI |
| 7,913,562 | 3/29/2011 | Flexible Plate Magnetostrictive Sensor Probe for Guided-Wave Inspection of Structures | Hegeon Kwun, Albert J. Parvin, Ronald H. Peterson | SwRI |
| 7,909,869 | 3/22/2011 | Artificial Spinal Unit Assemblies | Charles R. Gordon, Corey T. Harbold, Heather S. Hanson | Sponsored |
| 7,887,695 | 2/15/2011 | Fuels for Homogenous Charge Compression Ignition Engines | Jimell Erwin, Thomas W. Ryan III, Rudolph H. Stanglmaier | SwRI |
| 7,866,147 | 1/11/2011 | Side Branch Absorber for Exhaust Manifold of Two-Stroke Internal Combustion Engine | Ralph E. Harris, Eugene L. Broerman III, Gary D. Bourn | SwRI |
| 7,852,073 | 12/14/2010 | Method and Device for Long-Range Torsional Guided-Wave Inspection of Piping with a Partial Excitation and Detection Around the Pipe Circumference | Hegeon Kwun, Hirotohi Matsumoto, James F. Crane | SwRI |
| 7,841,249 | 11/30/2010 | Fluidized Sensor for Mapping a Pipeline | Garth W. Tormoen | SwRI |
| 7,839,417 | 11/23/2010 | Virtual Coatings Application System | Jason M. Ebersberger, Michael J. Bolick, Jeremiah G. Treloar, Richard J. Klein II, Eric C. Peterson, Chad J. Zalkin, James B. Fisher, Leslie C. Hughes | SwRI |
| 7,839,416 | 11/23/2010 | Virtual Coatings Application System | Jason M. Ebersberger, Michael J. Bolick, Jeremiah G. Treloar, Richard J. Klein II, Eric C. Peterson, Chad J. Zalkin, James B. Fisher, Leslie C. Hughes | SwRI |

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| 7,831,374 | 11/9/2010 | Combustion Control System for Internal Combustion Engine with Rich and Lean Operating Conditions | Shizuo Sasaki, Gary D. Neely, Jayant V. Sarlashkar | SwRI |
| 7,828,708 | 11/9/2010 | Case Erector and Sealer Apparatus | Jindai Huang, Alex Ching Hung Lau, Jeremy Zoss, Paul Avery | Sponsored |
| 7,827,929 | 11/9/2010 | Pneumatic Seasoning System | Wayne Garrison, Ross D. Samuels, Glynn R. Bartlett | Sponsored |
| 7,822,531 | 10/26/2010 | Stratified Charge Gasoline Direct Injection Systems Using Exhaust Gas Recirculation | Terrence Francis Alger II, Charles Edward Roberts Jr., Darius Mehta | SwRI |
| 7,821,446 | 10/26/2010 | Unswitched, Ultra Low Power, Long Range Radar System | Rodney V. Landreth, William D. Davis, Robert W. Robison | SwRI |
| 7,817,162 | 10/19/2010 | Virtual Blasting System for Removal of Coating and/or Rust from a Virtual Surface | Michael Bolick, Chris Lampe, Jason Ebensberger, Jeremiah Treloar, Rick Klein, Eric Conrad Peterson, Chad Jason Zalkin | Sponsored |
| 7,813,939 | 10/12/2010 | Pharmaceutical Inventory and Dispensation Computer System and Methods | Leon M. Clements, Glenn G. Hammack, Sean C. Mitchem, Kelly M. Jackson | Sponsored |
| 7,810,459 | 10/12/2010 | Split-Cycle Four-Stroke Engine | David P. Branyon, Jeremy D. Eubanks | Sponsored |
| 7,802,627 | 9/28/2010 | Remotely Operated Selective Fracing System and Method | Raymond A. Hofman, Gary L. Ragsdale, Stephen W. Cook, Paul A. Avery | Sponsored |
| 7,799,082 | 9/27/2010 | Artificial Functional Spinal Unit System and Method for Use | Charles R. Gordon, Corey T. Harbold, Heather S. Hanson, Erik J. Wagner | Sponsored |
| 7,794,836 | 9/14/2010 | Microencapsulation of Oxygen or Water Sensitive Materials | Niraj Vasishtha, Herman W. Schlameus, Darren E. Barlow | SwRI |
| 7,794,480 | 9/14/2010 | Artificial Functional Spinal Unit System and Method | Charles R. Gordon, | Sponsored |

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| | | for Use | Corey T. Harbold, Heather S. Hanson, Erik J. Wagner | |
| 7,790,003 | 9/7/2010 | Method for Magnetron Sputter Deposition | Kuang-Tsan Kenneth Chiang, Ronghua Wei, Edward Langa | SwRI |
| 7,788,901 | 9/7/2010 | Apparatus and Method for Regenerating Exhaust Treatment Devices | Yiqun Huang | SwRI |
| 7,785,351 | 8/31/2010 | Artificial Functional Spinal Implant Unit System and Method for Use | Charles R. Gordon, Corey T. Harbold, Heather S. Hanson, Erik J. Wagner | Sponsored |
| 7,781,220 | 8/24/2010 | Measurement of Nitrogen Content in a Gas Mixture by Transforming the Nitrogen into a Substance Detectable with Nondispersive Infrared Detection | Thomas E. Owen, Michael A. Miller | SwRI |
| 7,779,680 | 8/24/2010 | Estimation of Engine-Out NOX for Real Time Input to Exhaust Aftertreatment Controller | Shizuo Sasaki, Jayant V. Sarlashkar, Gary D. Neely | SwRI |
| 7,767,166 | 8/3/2010 | Packed-Bed Radial-Flow Non-Thermal Plasma Reactor | Rijing Zhan, Andy M. Anderson, Thomas R. Gabehart | SwRI |
| 7,762,521 | 7/27/2010 | Semi-Active Compressor Valve | Klaus Brun, Ryan S. Gernentz | SwRI |
| 7,758,778 | 7/20/2010 | Methods for Preparing Biodegradable Microparticle Formulations Containing Pharmaceutically Active Agents | Joseph T. Persyn, Joseph A. McDonough, Neal K. Vail, Darren E. Barlow, Albert M. Zwiener, Eliot M. Slovin | SwRI |
| 7,756,692 | 7/13/2010 | Crowd Behavior Modeling Method and System | Thomas G. Glass III, Arthur N. Rasmussen, John D. Micheletti | SwRI |
| 7,753,958 | 7/13/2010 | Expandable Intervertebral Implant | Charles R. Gordon, Corey T. Harbold, Heather S. Hanson | Sponsored |
| 7,753,025 | 7/13/2010 | Surface Ignition Mechanism for Diesel Engines | Shizuo Sasaki, Gary D. Neely | SwRI |
| 7,748,976 | 7/6/2010 | Use of Recirculated Exhaust Gas in a Burner-Based Exhaust Generation System for Reduced Fuel Consumption and for Cooling | Robert W. Burrahm, Michael G. Ross, Cynthia C. Webb, | SwRI |

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|------------|---------------|---|---|-----------|
| | | | Suzanne A. Timmons, Gordon J. J. Bartley | |
| 7,744,499 | 6/29/2010 | Hydro-Mechanical Transmission | Gary L. Stecklein | SwRI |
| 7,741,762 | 6/22/2010 | Dual-Spark Pre-Chambered Spark Igniter | Terrence F. Alger II, Barrett W. Mangold | SwRI |
| 7,741,127 | 6/22/2010 | Method for Producing Diesel Exhaust with Particulate Material for Testing Diesel Engine Aftertreatment Devices | Gordon J. Bartley, Cynthia C. Webb, Imad Said Abdul-Khalek | SwRI |
| 7,739,869 | 6/22/2010 | Diesel Particulate Filter Performance Using Sonic Particle Agglomeration | Magdi Kaiser Khair, Martin B. Treuhaft, Imad Said Abdul-Khalek | SwRI |
| 7,735,314 | 6/15/2010 | Exhaust After-Treatment System with Flow Control for Optimum Temperature Conditions | Qilong Lu, Yiqun Huang | SwRI |
| 7,733,466 | 6/8/2010 | Measurement of Constitutive Properties of a Powder Subject to Compressive Axial and Radial Loading, Using Optical Sensing | Alexander Beltran Bernardo, Gary Lane Burkhardt, Arthur Edwin Nicholls, Walter Mac Gray | SwRI |
| 7,724,198 | 5/25/2010 | System and Method for Path Alignment of Directional Antennas | Christopher Kipp Axton, Dean Alan Erdman | SwRI |
| 7,722,748 | 5/25/2010 | Apparatus for Measuring Electrochemical Corrosion | Kuang-Tsan Kenneth Chiang, Lietai Yang | SwRI |
| 7,721,543 | 5/25/2010 | System and Method for Cooling a Combustion Gas Charge | Mary Cecelia Massey, Thomas Earl Boberg | SwRI |
| 7,721,541 | 5/25/2010 | Secondary Internal Combustion Device for Providing Exhaust Gas to EGR-Equipped Engine | Charles E. Roberts Jr., Rudolf H. Stanglmaier | SwRI |
| 7,708,778 | 5/4/2010 | Expandable Articulating Intervertebral Implant with Cam | Charles R. Gordon, Corey T. Harbold, Heather S. Hanson | Sponsored |
| 7,704,546 | 4/27/2010 | Ceramic in Replacement Components | Geoffrey Dearnaley | SwRI |
| 7,690,337 | 4/6/2010 | Spark Plug Location for Split-Cycle Engine | Jean Pierre Pirault, Ian. P. Gilbert | Sponsored |
| 7,686,233 | 3/30/2010 | Systems and Methods for Dispensing an Anti-Traction, Mobility Denial Material | Cliff J. Scribner, Geronimo I. Elias Jr. | SwRI |
| 7,683,611 | 3/23/2010 | Pipeline Inspection Using Variable-Diameter Remote-Field Eddy Current Technology | Gary Lane Burkhardt, Alfred Eugene Crouch, | SwRI |

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| | | | Albert Joseph Parvin Jr., Ronald Herbert Peterson, Todd Hegert Goyen, Richard Franklin Tennis | |
| 7,682,026 | 3/23/2010 | Eye Location and Gaze Detection System and Method | Stephen Douglas Huffman, Michael Patrick Rigney | SwRI |
| 7,679,051 | 3/16/2010 | Ion Composition Analyzer with Increased Dynamic Range | James L. Burch | SwRI |
| 7,669,332 | 3/2/2010 | Method for Manufacturing Endodontic Reamers and Files | Steven Senia, Stuart Minica, E. Steve Senia, William L. Wildey, Gene Rimmer, Ed D. Moore | Sponsored |
| 7,666,253 | 2/23/2010 | Test Fixture for Collecting Particulate Material | Ernest M. Krueger, Timothy L. Travis | SwRI |
| 7,655,055 | 2/2/2010 | BioFuel | John Andrew Waynick | SwRI |
| 7,654,246 | 2/2/2010 | Apparatus and Method for Controlling Transient Operation of an Engine Operating in a Homogeneous Charge Compression Ignition Combustion Mode | Junmin Wang, Christopher J. Chadwell | SwRI |
| 7,640,731 | 1/5/2010 | Method for Controlling Exhaust Gas Flow and Temperature Through Regenerable Exhaust Gas Treatment Devices | Yiqun Huang | SwRI |
| 7,637,234 | 12/29/2009 | Split-Cycle Engine with a Helical Crossover Passage | Mark Tussing, Wei Li, Gareth Roberts | Sponsored |
| 7,634,392 | 12/15/2009 | Simulation of Guided Wave Reflection Signals Representing Defects in Conduits | Hegeon Kwun, Sang-Young Kim, Myoung-Seon Choi | SwRI |
| 7,625,848 | 12/1/2009 | Anti-Traction Compositions | Ronald J. Mathis, Mary C. Massey, Nicholle K. Reinhardt, Errol M. Brigance, Geronimo I. Elias, Dennis S. Rushforth | SwRI |
| 7,625,201 | 12/1/2009 | Method and Apparatus for Testing Catalytic Converter Durability | Melvin N. Ingalls Jr., Gordon J. Bartley, Cynthia C. Webb | SwRI |
| 7,624,628 | 12/1/2009 | Monitoring of Exhaust Gas Oxidation Catalysts | Gordon J. Bartley | SwRI |

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|-------------------|----------------------|--|---|------------------|
| 7,623,068 | 11/24/2009 | Detection of Deception Signal Used to Deceive Geolocation Receiver of a Satellite Navigation System | Luke Stephen Powell, Thomas Howard Jaeckle | SwRI |
| 7,621,120 | 11/24/2009 | Hybrid Technology for Lean NOx Trap and Particulate Filter Regeneration Control | Andrew C. Mathaeus, Ryan C. Roecker, Charles E. Roberts Jr. | SwRI |
| 7,610,791 | 11/3/2009 | Time-gain Control Method and System for Long-Range Guided-Wave Inspection and Monitoring | Hegeon Kwun, Ronald H. Peterson | SwRI |
| 7,603,245 | 10/13/2009 | Blind Estimation of Bandwidth and Duration Parameters of an Incoming Signal | Jared McGehee | SwRI |
| 7,597,016 | 10/6/2009 | Fuel Deposit Testing Using Burner-Based Exhaust Flow Simulation System | Suzanne A. Timmons, Scott F. Timmons | SwRI |
| 7,592,051 | 9/22/2009 | Nanostructured Low-CR CU-CR Coatings for the High Temperature Oxidation Resistance | Kuang-Tsan Kenneth Chiang, James H. Arps, Ronghua Wei | SwRI |
| 7,588,516 | 9/15/2009 | Virtual Reality System Locomotion Interface Utilizing a Pressure-Sensing Mat | Warren Carl Couvillion, Jr., Roger Rene Lopez, Jian Ling | SwRI |
| 7,588,001 | 9/15/2009 | Split-Cycle Four-Stroke Engine | David P. Branyon, Jeremy D. Eubanks | SwRI |
| 7,580,004 | 8/25/2009 | System and Method for Position or Range Estimation, Tracking, and Selective Interrogation and Communication | Ralph E. Hayles, Jr., James A. Moryl | SwRI and Sponsor |
| 7,578,179 | 8/25/2009 | Exhaust gas simulation system with dual path temperature control for control of exhaust temperature | Ernest M. Krueger, Cynthia C. Webb, Jason T. Miwa, Robert W. Burrahm | SwRI |
| 7,573,577 | 8/11/2009 | Spatial Heterodyne Wide-Field Coherent Anti-Stokes Raman Spectromicroscopy | Robert E. Martinez | SwRI |
| 7,573,369 | 8/11/2009 | System and Method for Interrogating and Locating a Transponder Relative to a Zone-of-Interest | Ralph E. Hayles, Jr., James A. Moryl | SwRI and Sponsor |
| 7,572,345 | 8/11/2009 | Life Extension of Chromium Coatings and Chromium Alloys | Geoffrey Dearnaley, Kevin C. Walter | Sponsored |
| 7,565,252 | 7/21/2009 | Method for Automatic Differentiation of Weld Signals from Defect Signals in Long-Range Guided-Wave Inspection Using Phase Comparison | Sang Young Kim, Hegeon Kwun | SwRI |

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| 7,565,237 | 7/21/2009 | Control of In-Cylinder Conditions of an Internal Combustion Engine Operating with Multiple Combustion Modes | Junmin Wang | SwRI |
| 7,562,649 | 7/21/2009 | Combustion Control System Based on In-Cylinder Condition | Jayant V. Sarlashkar, Shizuo Sasaki, Gary D. Neely | SwRI |
| 7,557,570 | 7/7/2009 | System and Method for Producing Color Contour Maps of Surface Defects of High Pressure Pipelines | Alfred E. Crouch, Todd Goyen, Patrick C. Porter, Shawn Laughlin | Sponsored |
| 7,556,743 | 7/7/2009 | Nanocomposites and Methods for Synthesis and Use Thereof | Benjamin R. Furman, Stephen T. Wellinghoff, Paul M. Thompson, Ralph Rawls | Government Sponsored |
| 7,550,126 | 6/23/2009 | NOx Augmentation in Exhaust Gas Simulation System | Cynthia C. Webb, Christopher A. Sharp | SwRI |
| 7,528,762 | 5/5/2009 | Signal Processing Methods for Ground Penetrating Radar from Elevated Platforms | Stephen A. Cerwin | SwRI |
| 7,528,607 | 5/5/2009 | Measurement of CN Emissions from Engine Spark Igniter for Characterization of Spark Igniter Energy | Terrence F. Alger II, Geoffrey Dearnaley, Kevin C. Walter | SwRI |
| 7,525,222 | 4/28/2009 | Sensor Assembly and Sensing System for Sensing Human Tissue in a Protected Area of a Machine | Robert E. Martinez, Todd Goyen, Jack Nunes | Sponsored |
| 7,520,965 | 4/21/2009 | Magnetron Sputtering Apparatus and Method for Depositing a Coating Using Same | Ronghua Wei | SwRI |
| 7,520,836 | 4/21/2009 | Virtual Reality System Locomotion Interface Utilizing a Pressure-Sensing Mat Attached to Movable Base Structure | Warren C. Couvillion Jr., Roger Rene Lopez, Jian Ling | SwRI |
| 7,512,479 | 3/31/2009 | Air Fraction Estimation for Internal combustion Engines with Dual-Loop EGR Systems | Jummin Wang | SwRI |
| 7,504,992 | 3/17/2009 | Wireless System Using Continuous Wave Phase Measurement for High-Precision Distance Measurement | Michael E. Pilcher Jr., Brian E. Campion, Ben A. Abbott | SwRI |
| 7,501,814 | 3/10/2009 | Apparatus and Method for Inspection of Aircraft Wing Attachment Fittings Using Electric Current Perturbation | Clinton J. Thwing, Gary L. Burkhardt | U.S. Air Force |
| 7,497,077 | 3/3/2009 | System and Method for Dispensing an Aqueous Urea Solution into an Exhaust Gas Stream | Lee G. Dodge, Paul H. Kunkel | SwRI |

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| 7,495,447 | 2/24/2009 | Benchtop Test System for Testing Spark Plug Durability | Terrence F. Alger II, Darius Mehta, Charles Edward Roberts Jr. | SwRI |
| 7,487,766 | 2/10/2009 | Flexible Fuel Engines with Exhaust Gas Recirculation for Improved Engine Efficiency | Terrence F. Alger II, Barrett W. Mangold | SwRI |
| 7,481,652 | 2/27/2009 | Endodontic Reamer and Files | Steven Senia, Stuart Minica, E. Steve Senia, William L. Wildey, Gene Rimmer, Ed D. Moore | Sponsored |
| 7,474,092 | 1/6/2009 | Method and Device for Long-Range Guided-Wave Inspection of Fire Side of Waterwall Tubes in Boilers | Hegeon Kwun, Hirotohi Matsumoto, James F. Crane | SwRI |
| 7,469,596 | 12/30/2008 | Measurement of Constitutive Properties of a Powder Specimen Subject to Compressive Axial and Radial Loading, Using Eddy Current Sensing | Alexander Beltran Bernardo, Gary Lane Burkhardt, Arthur Edwin Nicholls, Walter Mac Gray | SwRI |
| 7,466,827 | 12/29/2008 | System and Method for Simulating Audio Communications Using a Computer Network | Kase J. Saylor, Gary L. Ragsdale, Jimmy R. Gaddy, Stephen R. Gray | SwRI |
| 7,465,360 | 12/16/2008 | Methods for Removing a Dispersed Lubricious Coating from a Substrate | Cliff J. Scribner | SwRI |
| 7,464,673 | 12/16/2008 | Single-ended Barrel Engine with Double-Ended, Double Roller Pistons | Charles Russell Thomas, Bret R. Hauser, David P. Branyon | Sponsored |
| 7,459,999 | 12/2/2008 | Variable-Diameter Electromagnetic Coil | Gary L. Burkhardt, Albert J. Parvin Jr., Todd H. Goyen | SwRI |
| 7,459,067 | 12/2/2008 | Semi-Permanent Reference Electrode | Darrell S. Dunn, Christopher S. Brossia | SwRI |
| 7,422,607 | 9/9/2008 | Anti-Calcification Treatments for Heart Valves and Vascular Grafts | Henry W. Oviatt, Neal K. Vail | SwRI |
| 7,421,915 | 9/9/2008 | Nondestructive Inspection Apparatus | Tadashi Yamane, Yasuhiko Katsube, Takashi Sato, Albert J. Parvin, Rolf Glauser, | Sponsored |

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| | | | James F. Crane | |
| 7,421,888 | 10/10/2008 | Regenerative System for Testing Torque Converters and Other Transmission Coupling Devices | Denis Long, Glenn Wendel | SwRI |
| 7,420,195 | 9/2/2008 | Frequency-Optimized Detection of Gun Muzzle Flashes | Stephen A. Cerwin, Thomas C. Untermeyer, David Bing Jue Chang, Thomas J. Warnagiris | SwRI |
| 7,419,942 | 9/2/2008 | Easily Dispensed, Anti-Traction, Mobility Denial System | William A. Mallow, Ronald J. Mathis, Andrew Warren, Christian J. Schwartz, Errol M. Brigance, Kenneth R. Collins, Nicholle K. Reinhardt, Mary C. Marshall | SwRI |
| 7,419,941 | 10/10/2008 | Lubricant Oils and Greases Containing Nanoparticles | John A. Waynick | SwRI |
| 7,412,822 | 8/12/2008 | Regeneration Control for Diesel Particulate Filter for Treating Diesel Engine E | Rijing Zhan, Yiqun Huang | SwRI |
| 7,412,335 | 8/12/2008 | Component Evaluations Using Non-Engine Based Test System | Andy Morris Anderson, Gordon J. J. Bartley, Cynthia C. Webb, Martin J. Heimrich, Thomas R. Gabehart, Bruce B. Bykowski | SwRI |
| 7,405,184 | 7/29/2008 | Anti-traction, mobility denial methods and products | Ronald J. Mathis, Mary C. Marshall, Nicholle K. Reinhardt, Errol M. Brigance, Geronimo I. Elias Jr., Kenneth R. Collins | SwRI |
| 7,398,160 | 7/8/2008 | Gas Energy Meter for Inferential Determination of Thermophysical Properties of a Gas Mixture at Multiple States of the Gas | Thomas B. Morrow, Eric Kelner, Thomas E. Owen | SwRI |
| 7,389,752 | 6/24/2008 | Use of Engine Lubricant as Ignition Fuel for Micro-Pilot Ignition System of an Internal Combustion Engine | Terrence F. Alger II, Jess W. Gingrich, Stephen F. Hahne | SwRI |
| 7,389,173 | 6/17/2008 | Control System for an Internal Combustion Engine Operating with Multiple Combustion Modes | Junmin Wang | SwRI |
| 7,387,592 | 6/17/2008 | Virtual Reality System Locomotion Interface Utilizing a Pressure-Sensing Mat | Warren Carl Couvillion Jr., Roger Rene Lopez, Jian Ling | SwRI |

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| 7,383,592 | 6/10/2008 | Insulating Medium | Marshall L. Nuckolls, Jerry A. Henkener | SwRI |
| 7,382,471 | 6/3/2008 | Non-Contact Apparatus and Method for Measuring Surface Profile | Ernest A. Franke, Michael J. Magee, Michael P. Rigney, Joseph N. Mitchell, Robert J. Beeson | SwRI |
| 7,381,426 | 6/3/2008 | Targeted Delivery of Bioactive Factors to the Systemic Skeleton | Neal Vail | SwRI |
| 7,381,153 | 6/3/2008 | Virtual Reality System Locomotion Interface Utilizing a Pressure-Sensing Mat | Warren C. Couvillion Jr., Roger R. Lopez, Jian Ling | SwRI |
| 7,381,152 | 6/3/2008 | Virtual Reality System Locomotion Interface Utilizing a Pressure-Sensing Mat | Warren C. Couvillion Jr., Roger R. Lopez, Jian Ling | SwRI |
| 7,379,852 | 5/27/2008 | N-Phase Interface Tracking Method Utilizing Unique Enumeration of Microgrid Cells | Christopher J. Freitas, Mary Ann Clarke | Sponsored |
| 7,372,031 | 5/13/2008 | System and Method for Sensitive Photon Detection | Stephen A. Cerwin, David B. Chang | SwRI |
| 7,364,599 | 4/29/2008 | Methods for Increased Removal of Drag Reducer Additives from Liquid Hydrocarbon Fuel Date of Issue | John Andrew Waynick | SwRI |
| 7,363,043 | 4/22/2008 | Passive GSM-Based Self-Locating Device | Thomas H. Jaeckle, Richard L. Johnson, Michael A. Koets, M. LaVarre Bushman | SwRI |
| 7,357,900 | 4/15/2008 | Nox Reduction System for Diesel Engines, Using hydrogen Selective Catalytic Reduction | Gordon J. J. Bartley, Christopher Alan Sharp | SwRI |
| 7,351,480 | 4/1/2008 | Tubular Structures with Coated Interior Surfaces | Ronghua Wei, Christopher Rincon, James Arps | SwRI |
| 7,347,086 | 3/25/2008 | System and Method for Burner-Based Accelerated Aging of Emissions Control Device, With Engine Cycle Having Cold Start And Warm Up Modes | Cynthia C. Webb, Bruce B. Bykowski, Gordon J. Bartley | SwRI |
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| 7,309,414 | 12/18/2007 | Method for Measuring Localized Corrosion Rate with a Multi-Electrode Array Sensor | Lietai Yang | SwRI |
| 7,299,623 | 11/27/2007 | Method for Controlling Exhaust Gas Temperature and Space Velocity during Regeneration to Protect Temperature Sensitive Diesel Engine Components and Aftertreatment Devices | Rudolf H. Stanglmaier, Ryan C. Roecker, Charles E. Roberts Jr., Lee G. Dodge, Christopher J. Chadwell, Darius Mehta, Daniel W. Stewart | SwRI |
| 7,299,137 | 11/20/2007 | Method for Drive Cycle Simulation Using Non-engine Based Test System | Gordon J. Bartley, Andy M. Anderson, Cynthia C. Webb, Bruce B. Bykowski | SwRI |
| 7,288,945 | 10/30/2007 | Systems and Methods for Detection of Dielectric Change in Material and Structure | Robert E. Martinez, Stephen A. Cerwin, Todd H. Goyen | SwRI |
| 7,283,664 | 10/16/2007 | Interactive Computer Aided Analysis of Images from Sensor Combinations | Michael J. Magee, Ernest A. Franke, Jeremy K. Zoss | SwRI |
| 7,277,801 | 10/2/2007 | Method for Testing Catalytic Converter Durability | Cynthia C. Webb, Bruce B. Bykowski, Gordon J. Bartley | SwRI |
| 7,276,467 | 10/2/2007 | Insulating Medium | Marshall L. Nuckols, Jerry A. Henkener | SwRI |
| 7,275,916 | 10/2/2007 | Integrated Engine/Compressor Control for Gas Transmission Compressors | Jack A. Smith, James J. Cole, Gary D. Bourn, Ralph E. Harris, Anthony J. Smalley | SwRI |
| 7,275,365 | 10/2/2007 | Method for Controlling Temperature in a Diesel Particulate Filter During Regeneration | Rijing Zhan, Yiqun Huang, Magdi K. Khair | SwRI |
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| 7,264,640 | 9/4/2007 | Method for Improving the Performance of Engines Powered by Liquid Hydrocarbon Fuel | John Andrew Waynick | SwRI |
| 7,262,155 | 8/28/2007 | High Octane Lubricants for Knock Mitigation in Flame Propagation Engines | Thomas W. Ryan III, Jack A. Smith | SwRI |
| 7,262,155 | 8/28/2007 | High octane lubricants for knock mitigation in flame propagation engines | Jack A. Smith, Thomas W. Ryan III | SwRI |
| 7,261,914 | 8/28/2007 | Method and Apparatus for Forming a Nitride Layer on a Biomedical Device | Ronghua Wei, Thomas L. Booker, Christopher Rincon, James H. Arps | SwRI |
| 7,261,747 | 8/28/2007 | Removal of Drag Reducer Additive from Liquid Hydrocarbon Fuel Using Attapulugus Clay | John A. Waynick | SwRI |
| 7,261,529 | 8/28/2007 | Apparatus for Preparing Biodegradable Microparticle Formulations Containing Pharmaceutically Active Agents | Joseph T. Persyn, Joseph A. McDonough, Neal K. Vail, Darren E. Barlow, Albert M. Zwiener, Eliot M. Slovin | SwRI |
| 7,261,086 | 8/28/2007 | Fast Warm-Up of Diesel Aftertreatment System During Cold Start | Yiqun Huang | SwRI |
| 7,252,684 | 8/7/2007 | Ceramic in Replacement Components | Geoffrey Dearnaley | SwRI |
| 7,251,932 | 8/7/2007 | Exhaust System and Method for Controlling Exhaust Gas Flow and Temperature Through Regenerable Exhaust Gas Treatment Devices | Yiqun Huang | SwRI |
| 7,240,670 | 7/10/2007 | Extended Duration High-Energy Ignition Circuit | Terrence F. Alger II, Barrett W. Mangold | SwRI |
| 7,239,954 | 7/3/2007 | Method for Rapid, Stable Torque Transition Between Lean Rich Combustion Modes | Yiqun Huang | SwRI |
| 7,238,831 | 7/3/2007 | MESOGENS | Stephen T. Wellinghoff, Douglas P. Hanson | SwRI |
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| 7,198,555 | 4/3/2007 | Atomizer Cooling by Liquid Circulation Through Atomizer Tip Holder | Lee Dodge | SwRI |
| 7,197,867 | 4/3/2007 | Method for the Simultaneous Desulfation of a Lean NOx Trap and Regeneration of a Diesel Particulate Filter | Yiqun Huang, Shizuo Sasaki, Gary D. Neely | SwRI |
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| 7,195,006 | 3/27/2007 | Exhaust Gas Recirculation System with Control of EGR Gas Temperature | Magdi K. Khair, Yiqun Huang, Christopher A. Sharp, Cynthia C. Webb | SwRI |
| 7,189,574 | 3/13/2007 | Measurement of Nitrogen Content in a Gas Mixture by Transforming the Nitrogen into a Substance Detectable with Nondispersive Infrared Detection | Thomas E. Owen, Michael A. Miller | SwRI |
| 7,186,443 | 3/6/2007 | Systems and Methods for Dispensing an Anti-Traction, Mobility Denial Material | Cliff J. Scribner, Geronimo I. Elias Jr. | SwRI |
| 7,186,094 | 3/6/2007 | Method and Apparatus for Measuring Work Performed by a Compressor | Carl E. Edlund, Ralph E. Harris, Kurt A. Franke | Sponsored |
| 7,182,710 | 2/27/2007 | Observer-Based Control Method for Automatically Shifting a Manual Transmission | Bapiraju Surampudi | SwRI |
| 7,180,970 | 2/20/2007 | Automatic Link Establishment Using External Synchronization | Thomas L. Warnagiris, Gary L. Ragsdale | SwRI |
| 7,175,422 | 2/13/2007 | Method for Accelerated Aging of Converters Incorporating Injection of Volatilized Lubricant | Cynthia C. Webb, Brent A. Shoffner, Gordon J. Bartley | SwRI |
| 7,168,411 | 1/30/2007 | Closed Loop Engine Control for Regulating NOx Emissions, Using a Two-Dimensional Fuel-Air Curve | Gary D. Bourn, Jack A. Smith, Jess W. Gingrich | SwRI |
| 7,164,785 | 1/16/2007 | Apparatus and Methods of Generation of Textures with Depth Buffers | Ryan Converse Logan, Ernest August Franke, Eric Conrad Peterson | SwRI |
| 7,163,668 | 1/16/2007 | Hydrogen Selective Catalytic Reduction for NOx | Gordon J. Bartley, Christopher Alan Sharp | SwRI |

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| 7,162,861 | 1/16/2007 | Method of Improving Performance of Emission Control Devices by Controlling Exhaust Oxygen Content | Magdi K. Khair | SwRI |
| 7,156,642 | 1/2/2007 | Dough Rolling Apparatus and Method | Marlin L. Anderson, David Lawrence Barry, David Brian Emerson, William C. Flannigan, John D. Kiel, Geoffrey T. Ley, Thomas E. Lyons, Richard James Ruegg | Sponsored |
| 7,155,107 | 12/26/2006 | System and Method for Detection of Fiber Optic Cable Using Static and Induced Charge | Jerome A. Helffrich, Glenn M. Light, Clinton J. Thwing | SwRI |
| 7,154,264 | 12/26/2006 | System and Method Using a Collapsible Coil for Inspection of Pipelines Having Internal Restrictions | Gary L. Burkhardt, Alfred E. Crouch, Jay L. Fisher | SwRI |
| 7,147,800 | 12/12/2006 | Selective Ether Cleavage Synthesis of Liquid Crystals | Stephen T. Wellinghoff, Douglas P. Hanson | SwRI |
| 7,142,975 | 11/28/2006 | Virtual Cylinder Pressure Sensor with Individual Estimators for Pressure-Related Values | Junmin Wang, Ryan C. Roecker, Charles E. Roberts Jr. | SwRI |
| 7,140,874 | 11/28/2006 | Method and Apparatus for Testing Catalytic Converter Durability | Melvin N. Ingalls Jr., Gordon J. Bartley, Cynthia C. Webb | SwRI |
| 7,137,955 | 11/21/2006 | Methods and Systems for Distal Recording of Phonocardiographic Signals | Keith A. Bartels, Kevin S. Honeyager, Larry D. Canady Jr. | Sponsored |
| 7,137,379 | 11/21/2006 | Method for Rich Pulse Control of Diesel Engines | Shizuo Sasaki, Gary D. Neely | SwRI |
| 7,135,153 | 11/14/2006 | NOx Reduction System for Diesel Engines, Using Hydrogen Selective Catalytic Reduction | Gordon J. Bartley, Christopher A. Sharp | SwRI |
| 7,134,543 | 11/14/2006 | Containment Apparatus for Multi-Pass Ovens | David Lawrence Barry, David Brian Emerson, William C. Flannigan, John D. Kiel, Geoffrey T. Ley, Thomas E. Lyons, Devang Jitendra Sutaria | Sponsored |

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| 7,130,243 | 10/31/2006 | Location Finding System, Using Reflected Radio Frequency or Acoustic Signals in a Crowded Reflector Environment | Michael A. Koets | SwRI |
| 7,126,557 | 10/24/2006 | Tapered Area Small Helix Antenna | Thomas J. Warnagiris | SwRI |
| 7,126,528 | 10/24/2006 | Method for Delivering Secondary (Non-Location) Data to a GPS Receiver | Jennifer L. Alvarez, Roger R. Chiodo, Thomas H. Jaeckle | SwRI |
| 7,123,149 | 10/17/2006 | Tagging and Tracking System for Assets and Personnel of a Commercial Enterprise | Brent M. Nowak, Michael F. Milam, Myron L. Moodie, Kenneth A. Oleson, Michael J. Lake, Sandra G. Dykes, Larry D. Canady, Charles A. Poer, John E. Fike Jr. | Sponsored |
| 7,121,236 | 10/17/2006 | Split-Cycle Engine with Dwell Piston Motion | Salvatore C. Scuderi, David P. Branyon | Sponsored |
| 7,108,801 | 9/19/2006 | Methods and Blends for Controlling Rheology and Transition Temperature of Liquid Crystals | Stephen T. Wellinghoff, Douglas P. Hanson | SwRI |
| 7,107,851 | 9/19/2006 | Processing Data, for Improved Accuracy, from a Device for Measuring Speed of Sound in a Gas | Thomas E. Owen | SwRI and Sponsor |
| 7,098,359 | 8/29/2006 | Mesogens and Methods for Their Synthesis and Use | Stephen T. Wellinghoff, Douglas P. Hanson | SwRI |
| 7,094,360 | 8/22/2006 | Resin Blends and Methods for Making Same | Stephen T. Wellinghoff, Douglas P. Hanson | SwRI |
| 7,094,055 | 8/22/2006 | Endodontic Reamer and a Method for Manufacturing Endodontic Reamers and Files | Steven Senia, Stuart Minica, E. Steve Senia, William L. Wildey, Gene Rimmer, Ed. D. Moore | Sponsored |
| 7,077,048 | 7/18/2006 | Multi-Layered Trap Ballistic Armor | Charles E. Anderson Jr., Dennis L. Orphal, Gordon R. Johnson | SwRI and Sponsor |
| 7,076,361 | 7/11/2006 | Engine Crankshaft Position Recognition and Tracking Method Applicable to Cam and Crankshaft Signals | Junmin Wang, Jayant V. Sarlashkar | SwRI |

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| 7,072,702 | 7/4/2006 | Method, Apparatus and System for Removing Motion Artifacts from Measurements of Bodily Parameters | Reuben W. Edgar Jr., August J. Allo, Jr., Paul B. Gunneson, Jesus D. Martin, John R. DelFavero, Michael B. Jaffe | Sponsored |
| 7,067,464 | 6/27/2006 | Easily Dispensed, Anti-Traction Mobility Denial System | William A. Mallow, Ronald J. Mathis, Christian J. Schwartz, Errol M. Brigance, Kenneth R. Collins, Nicholle K. Reinhardt, Mary C. Marshall | SwRI |
| 7,062,905 | 6/20/2006 | Control Method for Dual Path NOx Adsorber System | Magdi K. Khair, Harley D. Ferguson III | SwRI |
| 7,062,900 | 6/20/2006 | Single Wheel Radial Flow Gas Turbine | Klaus Brun | SwRI |
| 7,061,628 | 6/13/2006 | Non-Contact Apparatus and Method for Measuring Surface Profile | Ernest A. Franke, Michael J. Magee, Michael P. Rigney, Joseph N. Mitchell, Robert J. Beeson | SwRI |
| 7,059,278 | 6/13/2006 | Locomotive Engine Charge Air Cooling System and Method for Cooling the Engine | John C. Hedrick, Steven G. Fritz | SwRI |
| 7,052,736 | 5/30/2006 | Method for Depositing Coatings on the Interior Surfaces of Tubular Structures | Ronghua Wei, Christopher Rincon, James Arps | SwRI |
| 7,046,739 | 5/16/2006 | Pre-Distortion of Input Signals to Form Constant Envelope Signal Outputs | Michael E. Pilcher | SwRI |
| 7,041,234 | 5/9/2006 | Methods for Synthesis of Liquid Crystals | Stephen T. Wellinghoff, Douglas P. Hanson | SwRI |
| 7,038,444 | 5/2/2006 | System and Method for In-Line Stress Measurement by Continuous Barkhausen Method | Alfred E. Crouch, Gary L. Burkhardt | SwRI |
| 7,037,583 | 5/2/2006 | Functionalized Zirconium Oxide Particles | Benjamin R. Furman, Stephen T. Wellinghoff, Henry R. Rawls, Hong Dixon, Barry K. Norling | SwRI and Board of Regents, The University of Texas |

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| 7,032,376 | 4/25/2006 | Diesel Fuel Burner for Diesel Emission Control System | Cynthia C. Webb, Jeffrey A. Mathis | SwRI |
| 7,025,580 | 4/11/2006 | Method and Apparatus for Lining a Conduit | Richard T. Heagy, Cynthia D. Heagy, Tom R. Menger, John Simonis | Sponsored |
| 7,019,520 | 3/28/2006 | Method and System for Torsional Wave Inspection of Heat Exchanger Tubes | Hegeon Kwun, James F. Crane, Sang-Young Kim | SwRI |
| 7,018,434 | 3/28/2006 | Removal of Drag Reducer Additive from Fuel by Treatment with Selected Activated Carbons and Graphites | John Andrew Waynick | SwRI |
| 7,017,547 | 3/28/2006 | Method and Apparatus for Controlling Liquid-Phase Fuel Penetration Distance in a Direct-Fuel Injected Engine | Darius Mehta, Lee G. Dodge, Rudolf H. Stanglmaier, Charles E. Roberts Jr. | SwRI |
| 7,010,914 | 3/14/2006 | Method for Controlling Boost Pressure in a Turbocharged Diesel Engine | Charles E. Roberts Jr., Ryan C. Roecker | SwRI |
| 7,010,433 | 3/7/2006 | Indirect Measurement of Diluents in a Multi-Component Natural Gas | Thomas B. Morrow, Thomas E. Owen | SwRI |
| 7,002,079 | 2/21/2006 | Indicators for Early Detection of Potential Failures Due to Water Exposure of Polymer-Clad Fiberglass | Joseph N. Mitchell, Spring M. Haby, Dennis S. Rushforth, Mark E. Van Dyke, Henry W. Oviatt Jr., Andrew J. Phillips, Ralph H. Hill Jr., Mary C. Marshall | Sponsored |
| 6,990,857 | 1/31/2006 | Fuel Injector Timing Tool | Gary D. Bourn, John C. Hedrick, Steven G. Fritz, Larry W. Wolter | SwRI |
| 6,988,365 | 1/24/2006 | Dual Loop Exhaust Gas Recirculation System for Diesel Engines and Method of Operation | Shizuo Sasaki | SwRI |
| 6,987,396 | 1/17/2006 | Sensor Array for Electrochemical Corrosion Monitoring | Lietai Yang, Narasi Sridhar | SwRI |

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| 6,985,172 | 1/10/2006 | Model-Based Incident Detection System with Motion Classification | Michael P. Rigney, Michael J. Magee, Ernest A. Franke | SwRI |
| 6,983,645 | 1/10/2006 | Method for Accelerated Aging of Catalytic Converters Incorporating Engine Cold Start Simulation | Cynthia C. Webb, Bruce B. Bykowski, Gordon J. Bartley | SwRI |
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| 6,981,401 | 1/3/2006 | Method for Testing Properties of Corrosive Lubricants | James Ohi, Jose L. De La Cruz, Paul I. Lacey | SwRI |
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| 6,968,727 | 11/29/2005 | Calibration Method and Device for Long Range Guided Wave Inspection of Piping | Hegeon Kwun, Sang-Young Kim, Glenn M. Light | SwRI |
| 6,966,309 | 11/22/2005 | In-Cylinder Reburn Method for Emissions Reduction | Charles E. Roberts Jr., Rudolf H. Stanglmaier | SwRI |
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| 6,952,923 | 10/11/2005 | Split-Cycle Four-Stroke Engine | David P. Branyon, Jeremy D. Eubanks | SwRI |
| 6,948,310 | 9/27/2005 | Use of a Variable Valve Actuation System to Control the Exhaust Gas Temperature and Space Velocity of Aftertreatment System Feedgas | Charles E. Roberts Jr., Andrew C. Mathaeus, David P. Branyon, Rudolf H. Stanglmaier, Lee G. Dodge, | SwRI |

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| 6,939,686 | 9/6/2005 | Methodology of Using Raman Imaging Microscopy for Evaluating Drug Action Within Living Cells | Jian Ling, Steven D. Weitman, Michael A. Miller | SwRI |
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| 6,925,888 | 8/9/2005 | MEMS Sensor for Detecting Stress Corrosion Cracking | Christopher S. Brossia, Heather S. Hanson | SwRI |
| 6,925,881 | 8/9/2005 | Time Shift Data Analysis for Long-Range Guided Wave Inspection | Hegeon Kwun, Kim Sang-Young | SwRI |
| 6,917,196 | 7/12/2005 | Method and Apparatus Generating and Detecting Torsional Wave Inspection of Pipes or Tubes | Hegeon Kwun, Kim Sang-Young, James F. Crane, Myoung-Seon Choi | SwRI |
| 6,916,273 | 7/12/2005 | Virtual Reality System Locomotion Interface Utilizing a Pressure-Sensing Mat | Warren C. Couvillion Jr., Roger R. Lopez, Jian Ling | SwRI |
| 6,913,805 | 7/5/2005 | Controlled Release Ampule Containing a Fumigant | William W. Harlowe Jr., William A. McMahon, Donald J. Mangold, Bruce Bernstein | SwRI |
| 6,912,414 | 6/28/2005 | Electrode Systems and Methods for Reducing Motion Artifact | David A. Tong | SwRI |
| 6,911,828 | 6/28/2005 | Apparatus and Method for Detecting the Degradation of a Coating Using Embedded Sensors | Christopher S. Brossia, Darrell S. Dunn | SwRI |
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| 6,873,746 | 3/29/2005 | Apparatus and Method for Monitoring a Cable | Andrew H. Stewart, K. Arun Pandey, Glenn M. Light, Richard F. Tennis, Bernard A. Clairmont, Edward A. Bloom, Keith A. Bartels | Sponsored |
| 6,850,847 | 2/1/2005 | Device for Determining Thermophysical Properties of a Multi-Component Gas at Arbitrary Temperature and Pressure | Thomas B. Morrow, Kendricks A. Behring II | SwRI and Sponsor |
| 6,841,593 | 1/11/2005 | Microencapsulated and Macroencapsulated Drag Reducing Agent | Nagesh S. Kommareddi, Ryan Dinius, Niraj Vasishtha, Darren Eugene Barlow | Sponsored |
| 6,836,735 | 12/28/2004 | Method and System for Injecting Virtual Flaw Signals into a Nondestructive Test System | Gary L. Burkhardt, Jay L. Fisher, Ronald H. Peterson | SwRI |
| 6,836,502 | 12/28/2004 | Spectroscopy Light Source | Larry D. Canady, Christopher B. Catterson, Reuben W. Edgar Jr., Ralph Henry Hill Jr., Brian Lee Robey | Sponsored |
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| 6,832,734 | 12/21/2004 | Media Discharge Device | William J. Rafferty, William C. Flannigan | SwRI |
| 6,832,472 | 12/21/2004 | Method and Apparatus for Controlling Exhausted Gas Emissions During Cold-Start of an Internal Combustion Engine | Yiqun Huang, Joseph Grogan | SwRI |
| 6,823,716 | 11/30/2004 | Device for Precision Measurement of Speed of Sound in a Gas | Eric Kelner, Ali Minachi, Thomas E. Owen, Marion Burzynski Jr., Steven P. Petullo | SwRI and Sponsor |
| 6,815,948 | 11/9/2004 | Method of Detecting Tension Wire Break in Concrete Pole | Hegeon Kwun, Sang-Young Kim, Kyoichi Asano | Sponsored |
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| 6,802,262 | 10/12/2004 | Tetherless Neuromuscular Disrupter Gun with Liquid-Based Capacitor (Liquid Dielectric) | Thomas J. Warnagiris, Drew L. Goodlin | SwRI |
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| 6,796,278 | 9/28/2004 | Methods and Apparatuses for Laser Ignited Engines | Thomas W. Ryan III | SwRI |
| 6,796,165 | 9/28/2004 | Apparatus and Method for Real-Time Measurement of Mass, Size and Number of Solid Particles of Particulate Matter in Engine Exhaust | Imad Said Abdul-Khalek | SwRI |
| 6,792,899 | 9/21/2004 | Method and Apparatus for Active Control of Combustion Rate Through Modulation of Heat Transfer from the Combustion Chamber Wall | Charles E. Roberts Jr., Christopher J. Chadwell | SwRI |
| 6,779,409 | 8/24/2004 | Measurement of Torsional Dynamics of Rotating Shafts Using Magnetostrictive Sensors | Hegeon Kwun, Gary L. Burkhardt, Cecil M. Teller | SwRI |
| 6,779,344 | 8/24/2004 | Control System and Method for Turbocharged Throttled Engine | William Lyle Hartman, Donald Lee McCaw, Daniel James Podnar, | Sponsored |

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| | | | John Thomas Kubesh | |
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| 6,772,622 | 8/10/2004 | Disbonded Coating Cathodic Protection Monitoring Coupon | Oliver C. Moghissi, Darrell S. Dunn, Narasi Sridhar | SwRI |
| 6,769,393 | 8/3/2004 | Valve System for Internal Combustion Engine | Stanley K. Widener, David P. Branyon, Barry E. Westmoreland | Sponsored |
| 6,766,693 | 7/27/2004 | Averaged Guided Wave Inspection Technology For Ribbon Cable | Glenn M. Light, Ali Minachi, Kevin M. Carpenter | SwRI |
| 6,764,714 | 7/20/2004 | Method for Depositing Coatings on the Interior Surfaces of Tubular Walls | Ronghua Wei, Christopher Rincon, James Arps | SwRI |
| 6,756,141 | 6/29/2004 | Three-Electrode Fuel Cell | Michael A. Miller, Craig M. Wall | SwRI |
| 6,754,603 | 6/22/2004 | Virtual Vehicle Transmission Test Cell | Marlin R. Turbett, Robert M. Senseney, Steven D. Nash, Michael R. Rosati, David T. Stark, Alfonso G. Hysko, Robert W. Tator, David L. Joseph, Paul A. Piorkowski, Gary L. Stecklein, Matthew S. Castiglione, Joe Steiber, Benjamin A. Treichel, Bapiraju Surampudi | Sponsored |
| 6,754,592 | 6/22/2004 | Indirect Measurement of Nitrogen in a Multi-Component Natural Gas by Heating the Gas | Thomas B. Morrow, Kendricks A. Behring II | SwRI and Sponsor |
| 6,744,893 | 6/1/2004 | Receiver Estimation Engine for a Chaotic System | Arthur Fleming-Dahl | SwRI |
| 6,743,936 | 6/1/2004 | Composites Made Using Functionalized Nanoparticles | Stephen T. Wellinghoff, Hong Dixon, Henry R. Rawls, Barry K. Norling | SwRI and Board of Regents, The University of Texas |
| 6,742,328 | 6/1/2004 | Systems and Methods for Controlling Diesel Engine Emissions | Cynthia C. Webb, Patrick A. Weber, Magdi K. Khair | SwRI |

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| 6,723,177 | 4/20/2004 | Life Extension of Chromium Coating and Chromium Alloys | Geoffrey Dearnaley, Kevin C. Walter | SwRI |
| 6,718,861 | 4/13/2004 | Momentum Trap Ballistic Armor System | Charlie E. Anderson Jr., Dennis L. Orphal, Gordon R. Johnson | SwRI |
| 6,718,757 | 4/13/2004 | Integrated Method for Controlling Diesel Engine Emissions in CRT-LNT System | Magdi K. Khair, Cynthia C. Webb, Gordon J. Bartley Christopher A. Sharp | SwRI |
| 6,708,666 | 3/23/2004 | Multi-Zone Combustion Chamber for Combustion Rate Shaping and Emissions Control in Premixed-Charge Combustion Engines | Charles Edward Roberts Jr. | SwRI |
| 6,706,344 | 3/16/2004 | Controlled Fumigation of Wooden Structures | William W. Harlowe Jr., William A. McMahon, Donald J. Mangold, Bruce Bernstein | Sponsored |
| 6,704,660 | 3/9/2004 | System and Method to Determine Thermophysical Properties of a Multi-Component Gas at Arbitrary Temperature and Pressure | Thomas E. Morrow, Kendricks A. Behring II | SwRI and Sponsor |
| 6,696,585 | 2/24/2004 | Functionalized Nanoparticles | Stephen T. Wellinghoff, Hong Dixon, Henry R. Rawls, Barry K. Norling | SwRI and Board of Regents, The University of Texas |
| 6,695,617 | 2/24/2004 | Methods of Dental Repair Using Functionalized Nanoparticles | Stephen T. Wellinghoff, Hong Dixon, Henry R. Rawls, Barry K. Norling | SwRI and Board of Regents, The University of Texas |
| 6,690,746 | 2/10/2004 | Signal Recognizer for Communications Signals | James A. Sills, Q. Robert Black | SwRI |
| 6,690,166 | 2/10/2004 | Nuclear Magnetic Resonance Technology for Non-Invasive Characterization of Bone Porosity and Pore Size Distributions | Qingwen Ni, Xiaodu Wang, James D. King | SwRI |
| 6,683,463 | 1/27/2004 | Sensor Array for Electrochemical Corrosion Monitoring | Lietai Yang, Narasi Sridhar | SwRI |
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| 6,679,224 | 1/20/2004 | Method and Apparatus for Operating a Diesel Engine under Stoichiometric or Slightly Fuel-Rich Conditions | Rudolf H. Stanglmaier | SwRI |
| 6,679,180 | 1/20/2004 | Tetherless Neuromuscular Disrupter Gun with Liquid-Based Capacitor Projectile | Thomas J. Warnagiris, Drew L. Goodlin | SwRI |
| 6,677,159 | 1/13/2004 | Reversible Detector for Gaseous Carbon Dioxide | William A. Mallow | SwRI |
| 6,672,387 | 1/6/2004 | Oil and Gas Production with Downhole Separation and Reinjection of Gas | Jerry L. Brady, John M. Klein, Steven P. Petullo, Curtis G. Blount | Sponsored |
| 6,662,775 | 12/16/2003 | Integral Air Compressor for Boost Air in Barrel Engine | Bret R. Hauser | Sponsored |
| 6,662,760 | 12/16/2003 | Method and Apparatus for Controlling Combustion Timing in an Homogenous-Charge Compression-Ignition Engine | Rudolf H. Stanglmaier, Charles E. Roberts Jr., Daniel W. Stewart | SwRI |
| 6,662,130 | 12/9/2003 | Systems and Methods for Calibrating a Distorted Signal with Another Signal of Known Calibration | Harry Herbert Peel III, Keith Alan Bartels | Sponsored |
| 6,656,135 | 12/2/2003 | Passive and Wireless Displacement Measuring Device | Susan Zogbi, Larry D. Canady, Jerome A. Helffrich, Stephen A. Cerwin, Kevin S. Honeyager, Armando de los Santos, Christopher B. Catterson | SwRI |
| 6,647,287 | 11/11/2003 | Dynamic Cardiovascular Monitor | Harry Herbert Peel III, Eiichi Inada, Masayuki Shinoda, Franklin Tiffany Dodge, Xiao Zhao | Sponsored |
| 6,637,381 | 10/28/2003 | Oxygenated Fuel Plus Water Injection for Emissions Control in Compression Ignition Engines | Rudolf H. Stanglmaier, Daniel W. (Dickey) Stewart | SwRI |
| 6,624,628 | 9/23/2003 | Method and Apparatus Generating and Detecting Torsional Waves for Long Range Inspection of Pipes and Tubes | Hegeon Kwun, Sang-Young Kim, Alfred E. Crouch | SwRI |
| 6,615,580 | 9/9/2003 | Integrated System for Controlling Diesel Engine Emissions | Magdi K. Khair, Cynthia C. Webb, Gordon J. Bartley, Christopher A. Sharp | SwRI |
| 6,611,794 | 8/26/2003 | Signal Amplitude Restoration Apparatus and Method | Arthur Fleming-Dahl | SwRI |

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| 6,608,714 | 8/19/2003 | Bi-Directional , Single Material Thermal Actuator | Heather S. Hanson, Joseph N. Mitchell | SwRI |
| 6,607,163 | 8/19/2003 | Autonomous Stratospheric Airship | William D. Perry, Thomas H. Jaeckle, Lawrence E. Epley, Allan B. Black | SwRI |
| 6,605,304 | 8/12/2003 | Silicate-Containing Powders Providing Controlled, Sustained Gas Release | Stephen T. Wellinghoff, Joel J. Kampa, Sumner A. Barenberg, Peter N. Gray, Michael D. Lelah | SwRI and Sponsor |
| 6,604,051 | 8/5/2003 | Systems and Method to Determine Thermophysical Properties of a Multi-Component Gas | Thomas B. Morrow, Kendricks A. Behring, II | SwRI and Sponsor |
| 6,601,456 | 8/5/2003 | Fretting Fixture for High-Cycle Fatigue Test Machine | David L. Davidson, Thomas E. Owen, John B. Campbell | SwRI |
| 6,599,337 | 7/29/2003 | Selection of Materials to Test for and/or Remove Drag ReducerAdditive in Liquid Hydrocarbon Fuels | John Andrew Waynick | SwRI |
| 6,595,102 | 7/22/2003 | Reactive Personnel Protection System and Method | Thomas J. Warnagiris, David J. Stevens, Kirk A. Marchand | SwRI |
| 6,587,612 | 7/1/2003 | Thermally Actuated Spectroscopic Optical Switch | Joseph N. Mitchell, Martin Peter Wüest | SwRI |
| 6,586,745 | 7/1/2003 | Ultraviolet Target Designator and Methodology | Ralph H. Hill Jr., James R. Keys Jr. | SwRI |
| 6,581,571 | 6/24/2003 | Engine Control to Reduce Emissions Variability | John T. Kubesh, Daniel J. Podnar, John P. Latusek, Donald L. McCaw | Sponsored |
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| 6,571,611 | 6/3/2003 | High Temperature Diesel Fuel Test Apparatus and Method | Paul Lacey, Jose De La Cruz, Eliazar H. Saucedo, Jack R. Compton | SwRI |
| 6,570,543 | 5/27/2003 | Conformal, High-Frequency, Direction-Finding Antenna | Ruell F. Solberg Jr., Steven P. Saulnier, C. Nils Smith, William G. Guion | SwRI |
| 6,565,913 | 5/20/2003 | Non-Irritating Antimicrobial Coatings and Process for Preparing Same | James Arps, Geoffrey Dearnaley | SwRI |
| 6,564,865 | 5/20/2003 | Oil and Gas Production with Downhole Separation and Reinjection of Gas | Jerry L. Brady, James L. Cawvey, John M. Klein, Mark D. Stevenson, Steven J. Svedemann, Steven P. Petullo, Kerry N. Oliphant | Sponsored |
| 6,557,520 | 5/6/2003 | Multi-Zone Combustion Chamber and Method for Combustion Control in Compression-Ignited Reciprocating Engines | Charles E. Roberts Jr. | SwRI |
| 6,553,319 | 4/29/2003 | Unattended Liquid Sample Monitoring and Liquid Sample Storage System | Jerome A. Helffrich, William G. McBride Jr. | SwRI |
| 6,546,782 | 5/15/2003 | High Temperature Pressurized High Frequency Testing Rig and Test Method | Jose De la Cruz, Paul Lacey | SwRI |
| 6,543,398 | 4/8/2003 | High Efficiency Compression Ignition Aftertreatment Devices for Combined Use of Lean-Burn Combustion Systems and Three-Way Catalysts | Charles Edward Roberts Jr., Rudolf Hermann Stanglmaier | SwRI |
| 6,536,392 | 3/25/2003 | Method and Apparatus for Starting an Internal Combustion Engine | Stanley K. Widener | SwRI |
| 6,519,486 | 2/11/2003 | Method, Apparatus and System for Removing Motion Artifacts from Measurements of Bodily Parameters | Reuben W. Edgar Jr., August J. Allo Jr., Paul B. Gunneson, Jesus D. Martin, John R. DeFavero, Michael B. Jaffe | Sponsored |
| 6,514,565 | 2/4/2003 | Method for Producing a Lubricious Amorphous Carbon Film | Geoffrey Dearnaley, Mark Van Dyke | SwRI |

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| 6,494,192 | 12/17/2002 | On-Board Fuel Vapor Collection, Condensation, Storage and Distribution System for a Vehicle | William K. Capshaw, John C. Hedrick, David W. Naegeli, Michael G. Ross | SwRI |
| 6,488,727 | 12/2/2002 | Method for Producing Oxygenated Fuels | David W. Naegeli, Kenneth H. Childress, David S. Moulton, Paul I. Lacey | SwRI |
| 6,482,377 | 11/19/2002 | Method for Bypassing Sulfur Dioxide Around an Aftertreatment Device in an Exhaust Gas Aftertreatment System | Gordon James J. Bartlet, Magdi K. Khair | SwRI |
| 6,480,111 | 11/12/2002 | Motion Detection for Physiological Applications | Larry D. Canady, Kevin S. Honeyager, Jerome A. Helffrich, David A. Tong | SwRI |
| 6,474,213 | 11/5/2002 | Reactive Stiffening Armor System | James D. Walker, Dennis L. Orphal | SwRI |
| 6,474,060 | 11/5/2002 | Exhaust Gas Recirculation Filtration System | Magdi K. Khair | SwRI |
| 6,467,257 | 10/22/2002 | System for Reducing the Nitrogen Oxide (NOx) and Particulate Matter(PM) Emissions from Internal Combustion Engines | Magdi Khair, William D. DiSilverio, James E. Dittmar | SwRI |
| 6,463,202 | 10/8/2002 | Optimization of Curved Waveguide Design to Reduce Transmission Losses | Stephen A. Cerwin, David B. Chang | SwRI |
| 6,460,491 | 10/8/2002 | Method of Water/Fuel Co-Injection for Emissions Control During Transient Operating Conditions of a Diesel Engine | Rudolf H. Stanglmaier, Daniel W. Stewart (formerly Daniel W. Dickey) | SwRI |
| 6,453,264 | 9/17/2002 | Surface Flaw Detection Using Spatial Raman-Based Imaging | John Francis Maguire, John David Busbee, Steven R. LeClair | SwRI |
| 6,451,377 | 9/17/2002 | Methods for Making High Temperature Coatings from Precursor Polymersto Refractory Metal Carbides and Metal Borides | Partha P. Paul, Stuart T. Schwab | SwRI |
| 6,443,104 | 9/3/2002 | Engine and Method for Controlling Homogenous Charge CompressionIgnition Combustion in a Diesel Engine | Stefan Simescu, Thomas W. Ryan III, Daniel W. Stewart (formerly Daniel W. Dickey) | SwRI |

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| 6,442,495 | 8/27/2002 | Average Signal to Noise Ratio Estimator | Arthur Fleming-Dahl | SwRI |
| 6,429,650 | 8/6/2002 | Method and Apparatus Generating and Detecting Torsional Wave Inspection of Pipes or Tubes | Hegeon Kwun, Sang-Young Kim, James F. Crane | SwRI |
| 6,429,643 | 8/6/2002 | Device for Measuring Power Using Switchable Impedance | Richard T. Smith | SwRI |
| 6,426,503 | 7/30/2002 | Opto-Electronic Ultra-Violet Radiation Dosimeter | Martin P. Wuest | SwRI |
| 6,424,150 | 7/23/2002 | Magnetostrictive Sensor Rail Inspection System | Hegeon Kwun, Glenn M. Light | SwRI |
| 6,417,244 | 7/9/2002 | Metal Oxide Compositions and Methods | Stephen T. Wellinghoff, Hong Dixon, Henry R. Rawls, Barry K. Norling | SwRI and Board of Regents, The University of Texas |
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| 6,411,328 | 6/25/2002 | Method and Apparatus for Traffic Incident Detection | Ernest A. Franke, Ernest S. Kinkler, Michael J. Magee, Steven B. Seida | SwRI |
| 6,410,765 | 6/25/2002 | Methods of Making Functionalized Nanoparticles | Stephen T. Wellinghoff, Hong Dixon, Henry R. Rawls, Barry K. Norling | SwRI and Board of Regents, The University of Texas |
| 6,410,144 | 6/25/2002 | Lubricious Diamond-Like Carbon Coatings | Geoffrey Dearnaley, Mark Van Dyke | SwRI |
| 6,404,189 | 6/11/2002 | Method and Apparatus for Inspecting Pipelines from an In-Line Inspection Vehicle Using Magnetostrictive Probes | Hegeon Kwun, Sang Y. Kim | SwRI |
| 6,396,262 | 5/28/2002 | Method and Apparatus for Short Term Inspection or Long Term Structural Health Monitoring | Glenn M. Light, Hegeon Kwun, Sang-Young Kim, Robert L. Spinks, Jr. | SwRI |
| 6,395,840 | 5/28/2002 | Precursor Polymers to Refractory Metal Carbides and Metal Borides | Partha P. Paul, Stuart T. Schwab | SwRI |
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| 6,378,489 | 4/30/2002 | Method for Controlling Compression Ignition Combustion | Rudolph H. Stanglmaier, Charles E. Roberts, Jr., Daniel W. Stewart (formerly Daniel W. Dickey), Thomas W. Ryan, III, Jeffrey A. Leet, Lee G. Dodge, Matthew E. Schulman | SwRI |
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| 6,373,245 | 4/16/2002 | Method for Inspecting Electric Resistance Welds Using Magnetostrictive Sensors | Hegeon Kwun, Sang-Young Kim | SwRI |
| 6,370,946 | 4/16/2002 | High Temperature Diesel Deposit Tester | Paul Lacey, Jose De La Cruz, Eliazar H. Saucedo, Jack Russell Compton | SwRI |
| 6,367,491 | 4/9/2002 | Apparatus for Contaminant Removal Using Natural Convection Flow and Changes in Solubility Concentration by Temperature | Mary C. Marshall, John G. Franjione, Christopher J. Freitas | SwRI |
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| 6,340,360 | 1/22/2002 | System for Cell Growth | Mark B. Lyles, Charles A. McLaughlin, Glenn A. Half, William A. Mallow | Sponsored |
| 6,339,409 | 1/15/2002 | Wide Bandwidth Multi-Mode Antenna | Thomas J. Warnagiris | SwRI |
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| 6,330,517 | 12/11/2001 | Interface for Managing Process | Patrick Dobrowski, Jon Westbrook, Kenneth L. Holladay | Sponsored |
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| 6,298,729 | 10/9/2001 | Catalytic Converter Testing | Robert J. Locker, Constance B. Sawyer, Douglas J. Fox, James F. Unruh | Sponsored |
| 6,295,677 | 10/2/2001 | Method for Inspecting Liquid Filled Pipes Using Magnetostrictive Sensors | Hegeon Kwun, Keith A. Bartels | SwRI |
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| 6,293,096 | 9/25/2001 | Multiple Stage Aftreatment System | Magdi K. Khair, Charles T. Hare | SwRI |
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| 6,280,509 | 8/28/2001 | Biocidal Coating Compositions and Method | William A. Mallow | Sponsored |
| 6,279,449 | 8/28/2001 | Rapid Deployment Countermeasure System and Method | Michael D. Ladika, Geoffrey Dearnaley | SwRI |
| 6,277,408 | 8/21/2001 | Silicate-Containing Powders Providing Controlled, Sustained Gas Release | Stephen T. Wellinghoff, Joel J. Kampa, Sumner A. Barenberg, Peter N. Gray | SwRI and Sponsor |
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| 6,260,619 | 7/17/2001 | Oil and Gas Production with Downhole Separation and Compression of Gas | Steven J. Svedeman, Steven P. Petullo, John M. Klein, James L. Cawvey, Jerry L. Brady, Mark D. Stevenson | Sponsored |
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| 6,249,261 | 6/19/2001 | Polymer, Composite, Direction-Finding Antenna | Ruell F. Solberg, Jr., Dayle D. Winnie, Steven P. Saulnier, Charles K. Baker, Patrick J. Siemsen, Charles H. Parr | SwRI |
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| 6,239,593 | 5/29/2001 | Method and System for Detecting and Characterizing Mechanical Damage in Pipelines Using Nonlinear Harmonics Techniques | Gary L. Burkhardt, Alfred E. Crouch | SwRI |
| 6,235,352 | 5/22/2001 | Method of Repairing a Thermal Barrier Coating | Gerald R. Leverant, Narayana S. Cheruvu, Partha P. Paul, Stuart T. Schwab | Sponsored |
| 6,231,650 | 5/15/2001 | Biocidal Coating Composition | William A. Mallow, Bryan C.G. Glenson, Larry Rogers | Sponsored |
| 6,227,174 | 5/8/2001 | Plunger-Activated Unit Injector for Internal Combustion Engines | John C. Hedrick, Robert W. Burrahm | SwRI |
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| 6,205,859 | 3/27/2001 | Method for Improving Defect Detectability with Magnetostrictive Sensors for Piping Inspection | Hegeon Kwun, Keith A. Bartels | SwRI |
| 6,201,391 | 3/13/2001 | Nonlinear Harmonics Method and System for Measuring Degradation in Protective Coatings | Gary L. Burkhardt, Hegeon Kwun | SwRI |
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| 6,174,538 | 1/16/2001 | Bait with Cucurbitacin | Keith L. Branly, James M. Gaggero, Chel W. Lew, Cathy S. Lamb | Sponsored |
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| 6,169,931 | 1/2/2001 | Method and System for Modeling, Predicting, and Optimizing Chemical Mechanical Polishing Pad Wear and Extending Pad Life | Scott R. Runnels | SwRI |
| 6,165,282 | 12/26/2000 | Method for Contaminant Removal Using Natural Convection Flow and Changes in Solubility Concentration by Temperature | Mary C. Marshall, John G. Franjione, Christopher J. Freitas | SwRI |
| 6,160,036 | 12/12/2000 | Microencapsulated Drag Reducing Agents | Nagesh S. Kommareddi, Lawrence J. Rzeznik, Niraj Vasishtha, Darren E. Barlow | Sponsored |
| 6,157,896 | 12/5/2000 | Geolocation Communications Method During Visibility Between an Earth-Orbit Satellite and a Transmitter and Receiver | M. Pike Castles, Austin Walker Boyd, Jr., James Andrew Moryl | SwRI |
| 6,153,294 | 11/28/2000 | Low Cost Deep Water Efficient Buoyancy | Edward M. Patton, Jerry A. Henkener, Lawrence J. Goland, Timothy S. Rennick | Sponsored |
| 6,151,969 | 11/28/2000 | Electromechanical and Electrochemical Impedance Spectroscopy for Measuring and Imaging Fatigue Damage | Michael A. Miller, Stephen J. Hudak Jr. | SwRI |
| 6,147,929 | 11/14/2000 | Method for Predicting Continuous and Discontinuous Waveguide Targets Using Interwell Seismic Signature Characteristics | Jorge Parra | Sponsored |
| 6,147,644 | 11/14/2000 | Autonomous Geolocation and Message Communication System and Method | M. Pike Castles, Austin Walker Body Jr., James Andrew Moryl | SwRI |
| 6,146,482 | 11/14/2000 | Method for Designing High Pressure Low Cost Prestressed Composite Wrapped Transmission Line System | Edward Matthew Patton, Timothy Stewart Rennick, Carl Harry Popelar | SwRI |
| 6,143,141 | 11/7/2000 | Method of Forming a Diffusion Barrier for Overlay Coatings | Gerald R. Leverant, James Arps, John Campbell, Richard Page | SwRI |
| 6,138,649 | 10/31/2000 | Fast Acting Exhaust Gas Recirculation System | Magdi K. Khair, Christopher A. Sharp | SwRI |
| 6,135,627 | 10/24/2000 | Method, Apparatus, and Article of Manufacture for Modeling Eddy Current Probes and Simulating Eddy Current Examinations | Robert E. Beissner, Edith A. Creek | SwRI |
| 6,134,947 | 10/24/2000 | Load Sensor for Measuring Engine Cylinder Pressure and Seat Occupant Weight | Hegeon Kwun | SwRI |

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|-------------------|----------------------|---|---|------------------|
| 6,131,631 | 10/17/2000 | Press Plug Support for the Inflation System | John Allen Bradley, Mark Kevin Hennig | Sponsored |
| 6,126,872 | 10/3/2000 | Microencapsulation Drag Reducing Agents | Nagesh S. Kommareddi, Lawrence J. Rzeznik, Niraj Vasishtha, Darren E. Barlow | Sponsored |
| 6,120,840 | 9/19/2000 | Method for Making Ceramic Matrix Composites Using Precursor Polymers to Refractory Metal Carbides and Metal Borides | Partha P. Paul, Stuart T. Schwab | SwRI |
| 6,111,501 | 8/29/2000 | Hand-Held Environmental Monitor | Kevin S. Honeyager, Terrie L. McDaniel, Larry D. Canady | SwRI |
| 6,110,066 | 8/29/2000 | Parallel Hybrid Drivetrain | Ashok Nedungadi, Mark Walls, D. Dardalis | SwRI |
| 6,087,025 | 7/11/2000 | Application of Diamond-Like Carbon Coatings to Cutting Surfaces of Metal Cutting Tools | Geoffrey Dearnaley, James Lankford, James H. Arps | SwRI |
| 6,063,517 | 5/16/2000 | Spiral Wrapped Cylindrical Proton Exchange Membrane Fuel Cells and Methods of Making Same | Alan Montemayor, Edward A. Bass, Michael Stewart, Narasi Sridhar | SwRI |
| 6,063,312 | 5/16/2000 | Method of Increasing the Relative Heat Capacity of a Pumpable Dielectric Heat Transfer Carrier Liquid | Richard J. Mannheimer | SwRI |
| 6,062,178 | 5/16/2000 | Method of Operating Uni-Flow Two-Cycle Engine During Reduced Load Conditions | David P. Meyers, John C. Hedrick, Gary D. Bourn, John T. Kubesh, Kevin D. Beaty, Robert W. Burrahm | SwRI |
| 6,056,992 | 5/2/2000 | Encapsulated Additives | Chel W. Lew | Sponsored |
| 6,053,736 | 4/25/2000 | Interactive Training System for AWACS Weapons Directors | Stephen D. Huffinan, Bruce C. Montag, Sharon D. Long | SwRI |
| 6,046,587 | 4/4/2000 | Measurement of Flow Fractions, Flow Velocities, and Flow Rates of a Multiphase Fluid Using NMR Sensing | J. Derwin King, Qingwen Ni, Armando De Los Santos | SwRI |
| 6,046,243 | 4/4/2000 | Compositions for Sustained Release of a Gas | Stephen T. Wellinghoff, Sumner A. Barenberg, Joel J. Kampa, Darren E. Barlow | SwRI and Sponsor |

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| 6,042,896 | 3/28/2000 | Preventing Radioactive Contamination of Porous Surfaces | L. Rodriguez, G. Dearnaley | SwRI |
| 6,042,883 | 3/28/2000 | Methods for Making High Temperature Coatings from Precursor Polymers to Refractory Metal Carbides and Metal Borides | Partha P. Paul, Stuart T. Schwab | SwRI |
| 6,042,638 | 3/28/2000 | Biocidal Coating Composition | William A. Mallow, Bryan C.G. Glenson, L. Rogers | Sponsored |
| 6,041,602 | 3/28/2000 | Hydraulically-Actuated Exhaust Gas Recirculation System and Turbocharger for Engines | Daniel W. Stewart (formerly Daniel W. Dickey) | SwRI |
| 6,038,525 | 3/14/2000 | Process Control for Pulsed Laser Deposition Using Raman Spectroscopy | John Francis Maguire, John David Busbee, David Charles Liptak, David Peter Lubbers, Steven R. LeClair, Rand Robert Biggers | SwRI |
| 6,032,064 | 2/29/2000 | Electrode Array System for Measuring Electrophysiological Signals | Philip H. Devlin, Rafael M. Cordero, Nassib G. Chamoun, John R. Shambroom, Charles Fendrock, Terrie L. McDaniel | SwRI |
| 6,029,558 | 2/29/2000 | Reactive Personnel Protection System | David J. Stevens, Kirk A. Marchand, Thomas J. Warnagiris | SwRI |
| 6,029,558 | 3/20/2007 | Reactive Personnel Protection System | David J. Stevens, Kirk A. Marchand, Thomas J. Warnagiris | SwRI |
| 6,023,980 | 2/15/2000 | High-Cycle Fatigue Test Machine | Thomas E. Owen, David L. Davidson, Andrew Nagy | SwRI |
| 6,016,711 | 2/25/2000 | Motor Vehicle Emissions Sampling System | Terry L. Ullman, Cynthia Webb | SwRI |
| 6,007,491 | 12/28/1999 | Cardiac Output Monitor Using Fuzzy Logic Blood Pressure Analysis | Jian Ling, Dean Winter, Brian Robey | SwRI |
| 6,005,028 | 12/21/1999 | Organic-Inorganic Hybrid Composites for Dental Restorative Material | Partha P. Paul | SwRI |

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| 6,004,412 | 12/21/1999 | Method and System for Repairing a Damaged Plastic Pipe | Stephen Cecil Grigory, Glen William Deel, Jesse Abergó Villarreal, Rolf Glauser | Sponsored |
| 6,001,500 | 12/14/1999 | Cylindrical Proton Exchange Membrane Fuel Cells and Methods of Making Same | Edward Bass, Patrick Merritt, Christopher Sharp, Craig Wall, John Campbell | SwRI |
| 6,001,481 | 12/14/1999 | Porous Anodized Aluminum Surfaces Sealed with Diamond-Like Carbon Coatings | Geoffrey Dearnaley, Stephen J. Lukezich | SwRI |
| 6,000,660 | 12/14/1999 | Rotary Beam Variable Stiffness Wing Spar | Kenneth E. Griffin, Robert P. Guillot, Damin J. Siler | SwRI |
| 6,000,288 | 12/14/1999 | Determining Average Wall Thickness and Wall-Thickness Variation of a Liquid-Carrying Pipe | Hegeon Kwun, Keith A. Bartels | SwRI |
| 6,000,277 | 12/14/1999 | Method for the Prediction of Rupture in Corroded Transmission Pipes Subjected to Combined Loads | Marina Q. Smith, Weu Wang, Carl H. Popelar, James Alan Maple | SwRI |
| 5,990,039 | 11/23/1999 | Metal Complex Derived Catalyst and Method of Forming | Partha P. Paul, Stuart T. Schwab | SwRI |
| 5,984,905 | 11/16/1999 | Non-Irritating Antimicrobial Coating for Medical Implants and a Process for Preparing Same | Geoffrey Dearnaley | SwRI |
| 5,984,874 | 11/16/1999 | Pressure and Temperature Sensor Transducer Array | Stephen A. Cerwin | SwRI |
| 5,980,826 | 11/9/1999 | Methods of Deodorizing and Retarding Contamination or Mold Growth Using Chlorine Dioxide | Stephen T. Wellinghoff, Sumner A. Barenberg, Peter N. Gray | SwRI and Sponsor |
| 5,980,699 | 11/9/1999 | Method for Preparing Silicon Nitride and Silicon Nitride Composites | Scott F. Timmons, Renee C. Graef, Stuart T. Schwab, Montgomery D. Grimes | SwRI |
| 5,976,711 | 11/2/1999 | Bearing Surfaces of Hypereutectic Alloys Modified to Increase Lubricant Effectiveness | Geoffrey Dearnaley | SwRI |
| 5,976,244 | 11/2/1999 | Fixation of Hazardous Wastes and Related Products | William A. Mallow | SwRI |
| 5,970,434 | 10/19/1999 | Method for Determining Average Wall Thickness for Pipes and Tubes Using Guided Waves | Joseph W. Brophy, Hegeon Kwun | SwRI |
| 5,964,745 | 10/12/1999 | Implantable System for Cell Growth Control | Mark B. Lyles, | Sponsored |

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| | | | Charles A. McLaughlin, Glenn A. Half, William A. Mallow | |
| 5,962,850 | 10/5/1999 | Large Aperture Particle Detector with Integrated Antenna | Martin Peter Wuest | SwRI |
| 5,959,073 | 9/28/1999 | Method for Preparing Polymeric Beads | Herman Wade Schlameus, Darren Eugene Barlow | SwRI |
| 5,954,095 | 9/21/1999 | Apparatus and Method for Sealing a Damaged Pipe | Stephen Cecil Grigory, Jess Abergo Villarreal, Jeffrey Gene Wright, Donald Wade Johnson | Sponsored |
| 5,948,171 | 9/7/1999 | Electrohydraulic Transducer for Cleaning the Inner Surface of Pipes | Michael G. Grothaus | SwRI |
| 5,947,063 | 9/7/1999 | Stoichiometric Synthesis, Exhaust, and Natural-Gas Combustion Engine | Jack A. Smith, Daniel J. Podnar, James J. Cole, John T. Kubesh, Gordon J. Bartley | SwRI |
| 5,945,558 | 8/31/1999 | Method of Making Amino Acid Acrylic Monoesters | William A. Mallow | SwRI |
| 5,945,153 | 8/31/1999 | Non-Irritating Antimicrobial Coating for Medical Implants and a Process for Preparing Same | Geoffrey Dearnaley | SwRI |
| 5,939,356 | 8/17/1999 | Controlled Release Coated Agricultural Products | Stephen T. Wellinghoff | SwRI |
| 5,931,790 | 8/3/1999 | System and Method for Accurately Monitoring the Cardiovascular State of a Living Subject | Harry H. Peel, III | Sponsored |
| 5,927,075 | 7/27/1999 | Method and Apparatus for Exhaust Gas Recirculation Control and Power Augmentation in an Internal Combustion Engine | Magdi K. Khair | Sponsored |
| 5,926,401 | 7/20/1999 | Weather Effects Generator for Simulation Systems | Bruce C. Montag, Dennis J. Wenzel, Richard P. Weyrauch | SwRI |
| 5,925,370 | 7/20/1999 | Biorepellant Matrix Coating | David M. Bullat, Niraj Vasishtha | U.S. Secretary of the Navy |
| 5,922,776 | 7/13/1999 | Sustained Release, Transparent Biocidal Coatings | Stephen T. Wellinghoff, Joel J. Kampa, Sumner A. Barenberg | SwRI and Sponsor |
| 5,922,415 | 7/13/1999 | Lubrication of Magnetic Disk Storage Media | Geoffrey Dearnaley, James Arps | SwRI |

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| 5,920,976 | 7/13/1999 | Apparatus and Method for Remotely Sealing a Damaged Pipe | Stephen Cecil Grigory, Jesse Abergo Villarreal, Jeffrey Gene Wright, Donald Wade Johnson | Sponsored |
| 5,920,492 | 7/6/1999 | Display List Generator for Fire Simulation Display | Bruce C. Montag, Stephen D. Huffinan, Denise C. Varner | SwRI |
| 5,914,120 | 6/22/1999 | Amine-Containing Biocidal Compositions Containing a Stabilized Chlorite Source | Stephen T. Wellinghoff, Joel J. Kampa | SwRI |
| 5,902,964 | 5/11/1999 | Measurement of Mass Using Simple Harmonic Motion with Active Spring and Active Damping | Ruell Floyd Solberg, Jr., H. Stanley Silvus | SwRI |
| 5,900,590 | 5/4/1999 | Centrifugal Measurement of Mass | Ruell Floyd Solberg, Jr., Richard Lorenz | SwRI |
| 5,895,439 | 4/20/1999 | Method for Generating and Displaying Complex Data Derived from Non-Destructive Evaluation Scanning | Jay L. Fisher, Keith S. Pickens | SwRI |
| 5,895,359 | 4/20/1999 | System and Method for Correcting a Living Subject's Measured Blood Pressure | H. Herbert Peel III | Sponsored |
| 5,892,162 | 4/6/1999 | Apparatus and Method for Inspection of Pipes and Tubes Using Guided Wave Probe | Robert L. Spinks, Joseph W. Brophy, Ronald H. Peterson | SwRI |
| 5,890,459 | 4/6/1999 | System and Method for a Dual Fuel, Direct Injection Combustion Engine | John C. Hedrick, Gary Bourn | SwRI |
| 5,888,528 | 3/30/1999 | Sustained Release Biocidal Composition | Stephen T. Wellinghoff, Sumner A. Barenberg, Hong Dixon, Joel J. Kampa, | SwRI and Sponsor |
| 5,880,378 | 3/9/1999 | Critical Flow Venturi With Variable and Continuous Range | Kendricks A. Behring, II | SwRI |
| 5,875,743 | 3/2/1999 | Apparatus and Method for Reducing Emissions in a Dual Combustion Mose Diesel Engine | Daniel W. Stewart (formerly Daniel W. Dickey) | SwRI |
| 5,868,881 | 2/9/1999 | Rotary Air Coupling for Tire Inflation System | John Allen Bradley | Sponsored |
| 5,868,176 | 2/9/1999 | System for Controlling the Fill of Compressed Natural Gas Cylinders | Andre M. Barajas, John C. Buckingham, Steven Svedeman | Sponsored |
| 5,865,756 | 2/2/1999 | System and Method for Identifying and Correcting Abnormal Oscillometric Pulse Waves | Harry H. Peel, III | Sponsored |

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|-------------------|----------------------|---|--|-----------------|
| 5,863,621 | 1/26/1999 | Non-Chromate Sealant for Porous Anodized Aluminum | Geoffrey Dearnaley, Stephen J. Lukezych | SwRI |
| 5,863,492 | 1/26/1999 | Ternary Heavy Alloy Based On Tungsten-Nickel-Manganese | Animesh Bose | SwRI |
| 5,861,701 | 1/19/1999 | Charged-Particle Powered Battery | Robert D. Young, John P. Hageman, Glenn M. Light, Stephen W. Seale, Jr. | SwRI |
| 5,850,285 | 12/18/1998 | Advanced Missile Approach Warning System (AMAWS) and Stealth (Low Observables) Detection Based On Exploitation of Quantum Effects | Ralph H. Hill Jr., James R. Keys | SwRI |
| 5,846,836 | 12/8/1998 | Reversible Detector for Gaseous Carbon Dioxide | William A. Mallow | SwRI |
| 5,842,524 | 12/1/1998 | Shrink-Wrap Fire Extinguishing Method and Container | Kent R. Farmer | SwRI |
| 5,836,289 | 11/17/1998 | Porous Element Fuel Vaporizer | Robert H. Thring | SwRI |
| 5,833,940 | 11/10/1998 | Production of Soluble Silicates From Biogenetic Silica | William A. Mallow, Roy S. Reiber, Jesse R. Conner | Sponsored |
| 5,832,880 | 11/10/1998 | Apparatus and Method for Controlling Homogenous Charge Compression Ignition Combustion in Diesel Engines | Daniel W. Stewart (formerly Daniel W. Dickey) | SwRI |
| 5,831,424 | 11/3/1998 | Isolated Current Sensor | Poul A. Jensen | SwRI |
| 5,823,159 | 10/20/1998 | Independent Valve Train Lubrication System | Susumu Ariga | SwRI |
| 5,821,430 | 10/13/1998 | Method and Apparatus for Conducting In-Situ Nondestructive Tensile Load Measurements in Cables and Ropes | Hegeon Kwun, Keith Bartels, John J. Hanley | SwRI |
| 5,810,595 | 9/22/1998 | Dental Repair Composition and Method | William A. Mallow | SwRI |
| 5,806,308 | 9/15/1998 | Exhaust Gas Recirculation System for Simultaneously Reducing NOx and Particulate Matter | Magdi K. Khair, William D. Di Silverio | SwRI |
| 5,799,436 | 9/1/1998 | Apparatus for Attracting and Destroying Insects | James A. Nolen, William Mallow | Sponsored |
| 5,798,428 | 8/25/1998 | Method of Preparing Polysilanes and Resultant Products | Stuart T. Schwab, Partha Paul, Ryoichi Nishida | Sponsored |

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| 5,780,119 | 7/14/1998 | Treatments To Reduce Friction and Wear on Metal Alloy Components | James Lankford, Geoffrey Dearnaley | SwRI |
| 5,771,868 | 6/30/1998 | Turbocharging Systems for Internal Combustion Engines | Magdi K. Khair, | Sponsored |
| 5,771,683 | 6/30/1998 | Active Porous Medium Aftertreatment Control System | Cynthia Chaffin Webb | SwRI |
| 5,768,477 | 6/16/1998 | Radio Direction Finding System for Narrowband Multiple Signals | Richard L. Johnson, William J. Montville | SwRI |
| 5,767,766 | 6/16/1998 | Apparatus and Method for Monitoring Vehicular Impacts Using Magnetostrictive Sensors | Hegeon Kwun, | SwRI |
| 5,764,721 | 6/9/1998 | Method for Obtaining Optimized Computed Tomography Images from a Body of High Length-To-Width Ratio Using Computer Aided Design Information For the Body | Glenn M. Light, Daniel Schneberk | SwRI |
| 5,763,106 | 6/9/1998 | Composite Powder and Method For Forming A Self-Lubricating Composite Coating and Self-Lubricating Components Formed Thereby | Cheryl R. Blanchard, Richard Allen Page | Sponsored |
| 5,759,904 | 6/2/1998 | Suppression of Transient Enhanced Diffusion in Ion Implanted Silicon | Geoffrey Dearnaley | SwRI |
| 5,754,143 | 5/19/1998 | Switch-Tuned Meandered-Slot Antenna | Donald R. Bannon, Thomas J. Minardo, Thomas J. Warnagiris | SwRI |
| 5,753,806 | 5/19/1998 | Apparatus and Method for Determining The Distribution and Flow Rate Characteristics of an Injection Nozzle | Thomas W. Ryan, Kendall R. Swenson | SwRI |
| 5,747,696 | 5/5/1998 | Method of Non-Invasively Monitoring Pressure of a Compressed Gas In A Closed Container | Hegeon Kwun, Michael Allen Piskie, Tony Gioutsos | Sponsored |
| 5,746,785 | 5/5/1998 | Diesel Fuel Having Improved Qualities and Method of Forming | David S. Moulton, David Naegeli | SwRI |
| 5,743,171 | 4/28/1998 | Oil Control Ring and Groove Arrangement for Improved Blowby Control | Susumu Ariga | SwRI |
| 5,740,785 | 4/21/1998 | Two-Way High Pressure Loop, Exhaust Gas Recirculation Valve | Daniel W. Stewart (formerly Daniel W. Dickey), Evan S. Guy | SwRI |
| 5,740,602 | 4/21/1998 | Wire Harness Assembly System | Eric C. Peterson, | Sponsored |

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| | | | Alex H. Damalas, Glynn R. Bartlett, Steven B. Farmer, Leslie B. Hoffman, Tak Kameoka, Horace H. Wacaser, Paul B. Wood | |
| 5,737,999 | 4/14/1998 | Blowby Pressure Control Above an Oil Control Ring in a Reciprocating Internal Combustion Engine | Susumu Ariga | SwRI |
| 5,735,905 | 4/7/1998 | Shock Absorbing Element for a Load Bearing Prosthesis | Charles H. Parr | SwRI |
| 5,735,245 | 4/7/1998 | Method and Apparatus for Controlling Fuel/Air Mixture in a Lean Burn Engine | John Thomas Kubesh, Lee Gene Dodge, Daniel James Podnar | SwRI |
| 5,731,045 | 3/24/1998 | Application of Diamond-Like Carbon Coatings to Cobalt-Cemented Tungsten Carbide Components | Geoffrey Dearnaley, James Lankford, Jr. | SwRI |
| 5,726,907 | 3/10/1998 | Biaxial Non-Contracting Strain Measurement Using Machine Vision | David L. Davidson, Steven B. Seida | SwRI |
| 5,720,805 | 2/24/1998 | Titanium-Tin-Oxide Nanoparticles, Compositions Utilizing the Same and Method of Forming the Same | Stephen T. Wellinghoff, Domnica Cernasov | SwRI |
| 5,710,413 | 1/20/1998 | H-Field Electromagnetic Heating System for Fusion Bonding | James D. King, Harold F. Donoho, Jr. | Sponsored |
| 5,707,739 | 1/13/1998 | Powdered Biocidal Compositions | Stephen T. Wellinghoff, Joel J. Kampa, Darren E. Barlow | SwRI |
| 5,705,092 | 1/6/1998 | Multilayered Biocidal Film Compositions | Stephen T. Wellinghoff, Joel J. Kampa, | SwRI |
| 5,695,814 | 12/9/1997 | Method of Making a Powdered Biocidal Composition | Stephen T. Wellinghoff, Joel J. Kampa, Darren E. Barlow | SwRI |
| 5,693,874 | 12/2/1997 | Test Apparatus and Method for Determining Deposit Formation Characteristics of Fuels | Jose L. De La Cruz, Ronald M. Estafan | SwRI |
| 5,672,967 | 9/30/1997 | Compact Tri-Axial Fluxgate Magnetometer and Housing with Unitary Orthogonal Sensor Substrate | John R. Scherrer, Poul A. Jensen | SwRI |
| 5,672,812 | 9/30/1997 | Sparkplug/Pressure Sensor Device | Roy C. Meyer | SwRI |
| 5,670,583 | 9/23/1997 | Metal Oxide-Polymer Composites | Stephen T. Wellinghoff | SwRI |

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| 5,668,185 | 9/16/1997 | Method of Making an Amine Containing Biocidal Composition | Stephen T. Wellinghoff | SwRI |
| 5,663,520 | 9/2/1997 | Vehicle Mine Protection Structure | Michael D. Ladika, Dennis Jerome Malone, David John Stevens | Sponsored |
| 5,660,617 | 8/26/1997 | System and Method for Maintaining Multiphase Flow With Minimal Solids Degradation | Gregory John Hatton | SwRI |
| 5,650,446 | 7/22/1997 | Sustained Release Biocidal Composition | Stephen T. Wellinghoff, Joel J. Kampa | SwRI |
| 5,644,006 | 7/1/1997 | High Strength Thermoset Copolymers Incorporating Modified Bisoxazoline Monomers | Marvin L. Deviney, Joel J. Kampa | SwRI |
| 5,639,295 | 6/17/1997 | Method of Making a Composition Containing A Stable Chlorite Source | Stephen T. Wellinghoff, Joel J. Kampa | SwRI |
| 5,631,300 | 5/20/1997 | Method of Making a Sustained Release Biocidal Composition | Stephen T. Wellinghoff | SwRI |
| 5,631,024 | 5/20/1997 | Medicaments For Beneficial Insects and Method | Sherrene D. Kevan, Peter G. Kevan, Jack D. Trevino | Sponsored |
| 5,630,718 | 5/20/1997 | Weather Simulation System | Bruce C. Montag, Dennis J. Wenzel, Richard P. Weyrauch | SwRI |
| 5,629,471 | 5/13/1997 | Sampling and Measuring Device with Calibrating Piston | James D. King | SwRI |
| 5,616,659 | 4/1/1997 | Low Flammability Thermoset Polymers | Joel J. Kampa, Marvin L. Deviney | SwRI |
| 5,607,708 | 3/4/1997 | Encapsulated Volatile Flavoring Materials | Mark S. Fraser, Kenneth C. Goodnight, Chel W. Lew | Sponsored |
| 5,607,684 | 3/4/1997 | Manufacture of Bait with Hot Melt Binder | Chel W. Lew, Kelly S. Johns | Sponsored |
| 5,605,714 | 2/25/1997 | Treatments to Reduce Thrombogenicity in Heart Valves Made from Titanium and its Alloys | Geoffrey Dearnaley, James Lankford, Jr. | SwRI |
| 5,603,073 | 2/11/1997 | Heavy Alloy Based on Tungsten-Nickel-Manganese | Animesh Bose | SwRI |
| 5,601,761 | 2/11/1997 | Encapsulated Active Materials and Method for Preparing Same | Dwight K. Hoffman, David V. Dellar, Herman W. Schlameus | SwRI/Dow Chemical |

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| 5,598,359 | 1/28/1997 | Weather Effects Generator for Simulation Systems | Bruce C. Montag, Dennis J. Wenzel, Richard P. Weyrauch | SwRI |
| 5,594,340 | 1/14/1997 | Apparatus for Accurately Controlling Moisture Levels of Aqueous Surfactant Compositions During On Line Processing Including a Cross-Feed Piston Assembly | Laurie Coyle, Kevin M. Finucane, James D. King, Harold F. Donoho, Armando De Los Santos | Sponsored |
| 5,594,041 | 1/14/1997 | Methods For Increasing Structural Integrity of Polymers and Polymers Treated by Such Methods | Geoffrey Dearnaley, Leonard Herk. | SwRI |
| 5,593,719 | 1/14/1997 | Treatments To Reduce Frictional Wear Between Components Made of Ultra-High Molecular Weight Polyethylene and Metal Alloys | Geoffrey Dearnley, James Lankford | SwRI |
| 5,587,534 | 12/24/1996 | Wall Thickness and Flow Detection Apparatus and Method for Gas Pipelines | Joseph D. McColskey, William P. Dube, M. Forunko, Raymond E. Schramm, Martin C. Renken, Cecil M. Teller, II, Glenn M. Light | SwRI |
| 5,584,178 | 12/17/1996 | Exhaust Gas Combuster | David W. Naegeli, Michael E. Crane | SwRI |
| 5,582,861 | 12/10/1996 | Method for Repair of Coatings On Carbon-Carbon Composites | Rene Graef, Stuart T. Schwab | SwRI |
| 5,581,037 | 12/3/1996 | Nondestructive Evaluation of Pipes and Tubes Using Magnetostrictive Sensors | Cecil M. Teller, II, Hegeon Kwun | SwRI |
| 5,580,433 | 12/3/1996 | Selective Electrochemical Detector for Nitric Oxide and Method | Charles K. Baker, Mohan R. A. Ram, Stephen T. Wellinghoff | Sponsored |
| 5,571,522 | 11/5/1996 | Bait with Corn Germ | Derrill Munson, Chel W. Lew, James M. Gaggero, Keith Branly | Sponsored |
| 5,569,153 | 10/29/1996 | Method of Immobilizing Toxic Waste Materials and Resultant Products | Robert D. Young, William A. Mallow | SwRI |
| 5,563,339 | 10/8/1996 | Self-Correcting Auto-Calibrating Vapor Pressure Analyzer | Gregory S. Schmid, Jack Russell Compton, Jose Luis De La Cruz | SwRI |
| 5,558,054 | 9/24/1996 | Variable Preload System for Valve Springs | Jongmin Lee, Susumu Ariga | SwRI |

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|-------------------|----------------------|--|--|-----------------|
| 5,556,713 | 9/17/1996 | Diffusion Barrier For Protective Coatings | Gerald R. Leverant | SwRI |
| 5,555,880 | 9/17/1996 | High Frequency Oscillatory Ventilator and Respiratory Measurement System | Dean C. Winter, Kevin S. Honeyager, Merle E. Converse, Ralph E. Harris | SwRI |
| 5,544,811 | 8/13/1996 | Flame Spray System and Method of Using the Same | Dean Tillery, Paul D. Musgrave, John McClusky, Russell L. Myers | Sponsored |
| 5,543,447 | 8/6/1996 | Stabilization of Red Amorphous Phosphorous By Ordered Polymeric Structures for the Manufacture of Non-Imissive Fire Retardant Plastics | Michael A. Miller, Scott F. Timmons, Darren E. Barlow | SwRI |
| 5,542,118 | 7/30/1996 | Induction Field Coupled Transmission System Incorporating a Passive Transmitter | Thomas J. Warnagiris | SwRI |
| 5,539,649 | 7/23/1996 | Automated Design and Manufacture of Artificial Limbs | Harry Grothus, Keith S. Pickens, Mark Muller, Nicholas Walsh, Virgil Faulkner | SwRI |
| 5,537,741 | 7/23/1996 | Method of Wire Harness Assembly System | Eric C. Peterson, Alex H. Damalas, Glynn R. Bartlett, Steven B. Farmer, Leslie B. Hoffman, Tak Kameoka, Horace H. Wacaser, Paul B. Wood | Sponsored |
| 5,533,538 | 7/9/1996 | Apparatus for Cleaning Articles Utilizing Supercritical and Near Supercritical Fluids | Mary C. Marshall | SwRI |
| 5,526,796 | 6/18/1996 | Air Assisted Fuel Injector with Timed Air Pulsing | Evan Scott Guy, Robert H. Thring | SwRI |
| 5,524,599 | 6/11/1996 | Fuzzy Logic Air/Fuel Controller | Hakchul Kong | SwRI |
| 5,512,330 | 4/30/1996 | Parylene Precursors for Diamond Like Carbon Coatings | Geoffrey Dearnaly | SwRI |
| 5,507,185 | 4/16/1996 | Adaptive Scanning Technique for Ultrasonic Testing Utilizing Realtime Lift-Off Detection | Keith S. Pickens | SwRI |
| 5,505,967 | 4/9/1996 | Microparticulate Pharmaceutical Delivery System | H. Wade Schlameus, Richard S. Geary | SwRI |
| 5,501,745 | 3/26/1996 | Low Temperature Method for Making a Photovoltaic | Geoffrey Dearnaley | SwRI |

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| | | Material | | |
| 5,499,605 | 3/19/1996 | Regenerative Internal Combustion Engine | Robert H. Thring | SwRI |
| 5,496,374 | 3/5/1996 | Ion Beam Modification of Bioactive Ceramics to Accelerate Biointegration of Said Ceramics | Cheryl Blanchard, Geoffrey Dearnaley, James Lankford | SwRI |
| 5,494,867 | 2/27/1996 | Method For Making Fiber-Reinforced Silicon Nitride Composite | David L. Davidson, Stuart T. Schwab, Renee C. Graef | SwRI |
| 5,493,171 | 2/20/1996 | Spark Plug Having Titanium Diboride Electrodes | Charles D. Wood, III, Cheryl Blanchard, James Lankford, Jr., James J. Cole, Gerald S. McAlwee | SwRI |
| 5,490,661 | 2/13/1996 | Quick Release System For Guardrail Terminals | David J. Stevens, Kirk A. Marchand, Joseph B. Mayer, Jr. | SwRI |
| 5,488,969 | 2/6/1996 | Metering Valve | Steven R. King, James J. Cole, Kennon H. Guglielmo, John P. Latusek | Sponsored |
| 5,486,768 | 1/23/1996 | Surface Resistivity Meter for Determining Surface Degradation of High Resistivity Materials | William A. Mallow, H. Stanley Silvus, Charles H. Parr, Jerome Dzuik, Jr. | SwRI |
| 5,484,587 | 1/16/1996 | Diabroticine Bait | Keith Branly, James M. Gaggero, Chel W. Lew, Cathy S. Lamb | Sponsored |
| 5,481,924 | 1/9/1996 | Method and Apparatus For Assessing and Quantifying Pulsation Induced Error in Gas Turbine Flow Meters | Cecil R. Sparks, Robert J. McKee | Sponsored |
| 5,480,305 | 1/2/1996 | Weather Simulation System | Bruce C. Montag, Dennis J. Wenzel, Richard P. Weyrauch | SwRI |
| 5,474,849 | 12/12/1995 | Adhesive Composition, Carbon-Carbon Composite Structures Prepared Therewith and Method of Forming Same | Rene Graef, Stuart T. Schwab, David C. Paquette | SwRI |
| 5,473,245 | 12/5/1995 | Magnetostrictive Linear Displacement Transmitter Having Improved Piezoelectric Sensor | Howard S. Silvus, Jr., Edward J. Miller, Jr., J. Marion Matherne, Tony W. Harper | Sponsored |

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| Patent No. | Date of Issue | Title of Invention | Inventor(s) | Assignee |
|-------------------|----------------------|---|--|-----------------|
| 5,471,400 | 11/28/1995 | Method of Detecting and Specifying Compressor Cylinder Leaks | Anthony J. Smalley, C. Richard Gerlach, Ralph E. Harris | Sponsored |
| 5,466,460 | 11/14/1995 | Controlled Release Microcapsules | William A. MacMahon, Chel W. Lew, Keith L. Branley | Sponsored |
| 5,466,350 | 11/14/1995 | Selective Electrochemical Detector for Nitric Oxide and Method | Charles K. Baker, Mohan R. A. Ram, Stephen T. Wellinghoff | Sponsored |
| 5,463,220 | 10/31/1995 | Time of Flight Mass Spectrometer Ion Source, and Methods of Preparing a Sample For Mass Analysis and of Mass Analyzing A Sample | David T. Young, Jill T. Marshall, Emile A. Schweikert, Melvin A. Park | SwRI |
| 5,457,994 | 10/17/1995 | Nondestructive Evaluation of Non-Ferromagnetic Materials Using Magnetostrictively Induced Acoustic/Ultrasonic Waves and Magnetostrictively Detected Acoustic Emissions | Hegeon Kwun, Cecil M. Teller, II | SwRI |
| 5,457,151 | 10/10/1995 | Polysilazane Adhesive Compositions | Stuart T. Schwab, Renee Graef, David G. Paquette | SwRI |
| 5,456,325 | 10/10/1995 | Method and Apparatus for Driving a Probe into the Earth | Phontie J. Pantermuehl, Donald H. Heihn, Thomas E. Owen | SwRI |
| 5,456,113 | 10/10/1995 | Nondestructive Evaluation of Ferromagnetic Cables and Ropes Using Magnetostrictively Induced Acoustic/Ultrasonic Waves and Magnetostrictively Detected Acoustic Emissions | Hegeon Kwun, Cecil M. Teller, II | SwRI |
| 5,452,763 | 9/26/1995 | Method and Apparatus for Generating Gass in a Drilled Borehole | Thomas E. Owen | SwRI |
| 5,444,451 | 8/22/1995 | Passive Means for Single Site Radio Location | Richard L. Johnson, Robert Q. Black, Allan G. Sonstebly | SwRI |
| 5,442,960 | 8/22/1995 | Measurement of Mass Using Angular Simple Harmonic Motion | Ruell F. Solberg, Jr. | SwRI |
| 5,440,566 | 8/8/1995 | Fault Detection and Diagnosis For Printed Circuit Boards | Hugh F. Spence, Robert A. Houston, Daniel P. Burris | SwRI |
| 5,409,591 | 4/25/1995 | Selective Electrochemical Detector for Nitric Oxide and Method | Charles K. Baker, Mohan R. A. Ram, Stephen T. Wellinghoff | Sponsored |

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| Patent No. | Date of Issue | Title of Invention | Inventor(s) | Assignee |
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| 5,409,379 | 4/25/1995 | Weather Simulation System | Bruce C. Montag, Dennis J. Wenzel, Richard P. Weyrauch | SwRI |
| 5,403,655 | 4/4/1995 | Toughened Thermosetting Resin Composites and Process | Marvin L. Deviney, Joel J. Kampa | SwRI |
| 5,401,322 | 3/28/1995 | Apparatus and Method for Cleaning Articles Utilizing Supercritical and Near Supercritical Fluids | Mary C. Marshall | SwRI |
| 5,393,572 | 2/28/1995 | Ion Beam Assisted Method of Producing a Diamond-Like Carbon Coating | Geoffrey Dearnaley | SwRI |
| 5,391,407 | 2/21/1995 | Process for Forming Protective Diamond-Like Carbon Coatings on Metallic Surfaces | Geoffrey Dearnaley, | SwRI |
| 5,385,778 | 1/31/1995 | Toughened Thermosetting Resin Composites and Process | Marvin L. Deviney, Joel J. Kampa | SwRI |
| 5,383,368 | 1/24/1995 | Deflection Sensor for Robot Links | Ernest Franke, Ashok Nedungadi, Glynn Bartlett | SwRI |
| 5,382,435 | 1/17/1995 | Microparticulate Pharmaceutical Delivery System | H. Wade Schlameus, Richard S. Geary | SwRI |
| 5,372,796 | 12/13/1994 | Metal Oxide-Polymer Composites | Stephen T. Wellinghoff | SwRI |
| 5,367,310 | 11/22/1994 | Fiber Optic Antenna Radiation Efficiency Tuner | Thomas J. Warnagiris | SwRI |
| 5,365,864 | 11/22/1994 | Laboratory Scale Incinerator Simulation System | Walter G. Switzer | Sponsored |
| 5,364,634 | 11/15/1994 | Controlled-Release PH Sensitive Capsule and Adhesive System and Method | Chel W. Lew, | SwRI |
| 5,360,976 | 11/1/1994 | Time of Flight Mass Spectrometer, Ion Source, and Methods of Preparing A Sample For Mass Analysis and of Mass Analyzing A Sample | David T. Young, Jill T. Marshall, Emile A. Schweikert, Melvin A. Park | SwRI |
| 5,360,609 | 11/1/1994 | Chlorine Dioxide Generating Polymer Packaging Films | Stephen T. Wellinghoff | SwRI |
| 5,360,074 | 11/1/1994 | Method and Composition for Preserving Core Sample Integrity Using an Encapsulating Material | Pierre E. Collee, William A. Mallow, Steven R. Radford | Sponsored |
| 5,358,994 | 10/25/1994 | Thermoplastic Material for Production and Repair of Polymeric Products and Coating of Metals | William A. Mallow | Sponsored |

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| Patent No. | Date of Issue | Title of Invention | Inventor(s) | Assignee |
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| 5,353,776 | 10/11/1994 | Method and Apparatus for Controlling Fuel Flow to Lean Burn Engines | Robert W. Burrahm, David P. Meyers | SwRI |
| 5,352,288 | 10/4/1994 | Low-Cost, High Early Strength, Acid-Resistant Pozzolanic Cement | William A. Mallow | Sponsored |
| 5,348,803 | 9/20/1994 | Microcapsules and Method for Degrading Hydrocarbons | James R. Scott, Mary C. Marshall, Matthew L. Alexander, Michael G. MacNaughton, H. Wade Schlameus | SwRI |
| 5,339,634 | 8/23/1994 | Fuel Supply System for Engines and Combustion Processes Therefor | Nigel F. Gale, David W. Naegeli, Thomas W. Ryan, III, Steven R. King | SwRI |
| 5,331,928 | 7/26/1994 | Variable Compression Piston | Charles D. Wood | SwRI |
| 5,322,797 | 6/21/1994 | Method for Detecting Vapor and Liquid Reactants | William A. Mallow, Jerome J. Dzuik, Jr. | SwRI |
| 5,321,410 | 6/14/1994 | Adaptive Doppler DF System | Jackie E. Hipp, William G. Guion | SwRI |
| 5,317,608 | 5/31/1994 | Method for Thermally Treating Discharged Nuclear Fuel | English C. Percy, Hersh K. Manktala | SwRI |
| 5,302,782 | 4/12/1994 | Three-Component Borehole Wall-Locking Seismic Detector | Thomas E. Owen | SwRI |
| 5,297,515 | 3/29/1994 | Fuel Supply Systems for Engines and Combustion Processes Therefor | Nigel F. Gale, David W. Naegeli, Thomas W. Ryan, III, Steven R. King | SwRI |
| 5,294,446 | 3/15/1994 | Composition and Method of Promoting Hard Tissue Healing | H.W. Schlameus, William C. Fox, Donald J. Mangold, Robert G. Triplett, George R. Holt, Thomas B. Aufdemorte | Swri |
| 5,294,425 | 3/15/1994 | Polysilazane Precursors for Silicon Nitride and Resultant Products | Stuart T. Schwab | SwRI |
| 5,292,657 | 3/8/1994 | Process for Preparing Rotary Disc Fatty Acid Microspheres of Microorganisms | William M. Rutherford, Jack E. Allen, Herman W. Schlameus, Donald J. Mangold, William W. Harlowe, Jr., Joseph R. Lebeda | Sponsored |

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| 5,292,533 | 3/8/1994 | Controlled Release Microcapsules | William A. McMahon, Chel W. Lew, Keith L. Branly | Sponsored |
| 5,291,136 | 3/1/1994 | Variable Angle Eddy Current Probe | William R. Van der Veer, Glenn M. Light | Sponsored |
| 5,285,521 | 2/8/1994 | Audible Techniques for the Reception of Nondestructive Evaluation Information | Amos E. Holt, Kent D. Polk, Richard A. Cervantes | SwRI |
| 5,280,411 | 1/18/1994 | Packaging for an Electronic Circuit Board | Gregory J. Dirks, Mark V. Muller | SwRI |
| 5,271,934 | 12/21/1993 | Encapsulated Antiperspirant Salts and Deodorant/Antiperspirants | Marvin E. Goldberg, David M. Kellner, Chel W. Lew, Cathy S. Lamb | Sponsored |
| 5,270,647 | 12/14/1993 | Pipe Electromagnetic Field Simulation Apparatus Using Born's Approximation Rule | Robert Beissner, Takashi Kikuta | Sponsored |
| 5,262,644 | 11/16/1993 | Remote Spectroscopy for Raman and Brillouin Scattering | John F. Maguire | SwRI |
| 5,256,036 | 10/26/1993 | Method and Apparatus for Pumping a Medium | James J. Cole | SwRI |
| 5,254,598 | 10/19/1993 | Biodegradable Composition and Products | Herman W. Schlameus, Mary C. Marshall, Stephen T. Wellingthoff, Donald J. Mangold, James R. Scott | SwRI |
| 5,246,636 | 9/21/1993 | Process for Making Microcapsules and Apparatus Therefor | Chel W. Lew, Jack D. Trevino | SwRI |
| 5,243,865 | 9/14/1993 | Dermal Exposure Testing Method and Apparatus Therefor | Jong-Ryng Hsu, David E. Camann, Kevin Villalobos | SwRI |
| 5,240,782 | 8/31/1993 | Fiber and Whisker Reinforced Composites and Method for Making the Same | Animesh Bose, James Lankford, Richard Page, Cheryl Blanchard | SwRI |
| 5,239,969 | 8/31/1993 | Mechanical Fuel Injector for Internal Combustion Engines | Kevin D. Beaty | SwRI |
| 5,229,977 | 7/20/1993 | Directional Underwater Acoustic Pulse Source | Thomas E. Owen | SwRI |

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| 5,228,011 | 7/13/1993 | Variable Multi-Stage Arc Discharge Acoustic Pulse Source Transducer | Thomas E. Owen | SwRI |
| 5,225,731 | 7/6/1993 | Solid Body Piezoelectric Bender Transducer | Thomas E. Owen | SwRI |
| 5,224,449 | 7/6/1993 | Lean-Burn Internal Combustion System | Yukiyoshi Fukano, Susumu Ariga | Sponsored |
| 5,222,993 | 6/29/1993 | Ignition System for Water-Cooled Gas Engines | Michael E. Crane | Sponsored |
| 5,216,598 | 6/1/1993 | System for Correction of Trends Associated with Pulse Wave Forms in Oximeters | Ronald L. Branstatter, Reuben W. Edgar | Sponsored |
| 5,203,329 | 4/20/1993 | Noninvasive Reflectance Oximeter Sensor Providing Controlled Minimum Optical Detection Depth | Setsuo Takatani, Jonathan P. Jaeb, Ronald L. Branstetter, Hiroshi Sakai | Sponsored |
| 5,201,299 | 4/13/1993 | Rotary Gaseous Fuel Injector | Hakchul Kong | SwRI |
| 5,199,008 | 3/30/1993 | Device for Digitally Measuring Intervals of Time | Walter L. Lockhart, Benjamin M. Piepgrass | SwRI |
| 5,198,871 | 3/30/1993 | Laser-Induced-Fluorescence Inspection of Jet Fuels | David W. Naegeli, Ralph H. Hill, Jr. | SwRI |
| 5,195,373 | 3/23/1993 | Ultrasonic Transducer for Extreme Temperature Environments | Glenn M. Light, Richard Cervantes, David G. Alcazar | SwRI |
| 5,194,262 | 3/16/1993 | Encapsulated Antiperspirant Salts and Deodorant/Antiperspirants | Marvin E. Goldberg, David M. Kellner, Chel W. Lew, Cathy S. Lamb | Sponsored |
| 5,193,495 | 3/16/1993 | Internal Combustion Engine Valve Control Device | Charles D. Wood, III | SwRI |
| 5,184,434 | 2/9/1993 | Process for Cutting with Coherent Abrasive Suspension Jets | Richard H. Hollinger, William D. Perry | SwRI |
| 5,183,763 | 2/2/1993 | Composition and Method for Detecting Vapor and Liquid Reactants | Jerome J. Dzuik, William A. Mallow | SwRI |
| 5,180,969 | 1/19/1993 | Detection of Reinforcing Steel Corrosion in Concrete Structures Using Non-Linear Harmonic and Intermodulation Wave Generation | Gary L. Burkhardt, Hegeon Kwun, Jay L. Fisher | SwRI |
| 5,178,119 | 1/12/1993 | Combustion Process and Fuel Supply System for Engines | Nigel F. Gale | SwRI |
| 5,173,333 | 12/22/1992 | Apparatus and Method for Discharging Static | Oren Tranbarger, | SwRI |

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| | | Electricity on the Internal Surface of Plastic Pipe | Clarence R. McGinnis, David H. Strain | |
| 5,173,274 | 12/22/1992 | Flash Liquid Aerosol Production Method and Apparatus | Thomas E. Owen | SwRI |
| 5,167,962 | 12/1/1992 | Filament System for Delivering a Medicament and Method | Chel W. Lew, Jack D. Trevino | SwRI |
| 5,167,947 | 12/1/1992 | Enhancement of Absorption of Radioprotective Drugs | Richard S. Geary | SwRI |
| 5,166,613 | 11/24/1992 | Method and Apparatus for Mapping Stress Within Ferromagnetic Materials by Analyzing Barkhausen Noise Formed by the Introduction of Magnetic Fields | William D. Perry | SwRI |
| 5,166,004 | 11/24/1992 | Fiber and Whisker Reinforced Composites and Method for Making the Same | Animesh Bose, James Lankford, Richard Page, Cheryl Blanchard | SwRI |
| 5,164,195 | 11/17/1992 | Method of Oral Delivery With an Adherent Controlled-Release Salt Sensitive Capsule | Chel W. Lew | SwRI |
| 5,159,617 | 10/27/1992 | Explosive Detection Method and Apparatus Using Selective Gamma Ray Resonance Absorption | Derwin J. King, Colin I. Nichols | SwRI |
| 5,151,695 | 9/29/1992 | Telemetric Measuring Device with High Power Generation | Robert W. Burrahm, James Davis, Armando De Los Santos, William Perry, William Rollwitz | SwRI |
| 5,144,922 | 9/8/1992 | Fuel Injection System for Compression Ignition Engines | Hakchul Kong | SwRI |
| 5,136,994 | 8/11/1992 | Internal Combustion Engine | Nigel F. Gale | SwRI |
| 5,132,125 | 7/21/1992 | Encapsulated Corn Kernels and Method of Forming the Same | Chel W. Lew, Darren E. Barlow | SwRI |
| 5,130,412 | 7/14/1992 | Electrochemical Drug Release and Article | Stephen T. Wellinghoff, Charles K. Baker | SwRI |
| 5,129,267 | 7/14/1992 | Flow Line Sampler | Colin I. Nichols | SwRI |
| 5,122,746 | 6/16/1992 | Hydrocarbon Gas Measurements Using Nuclear Magnetic Resonance | James D. King, William L. Rollwitz, Colin I. Nichols, Armando De Los Santos | Sponsored |
| 5,119,780 | 6/9/1992 | Staged Direct Injection Diesel Engine | Susumu Ariga | SwRI |

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| 5,118,194 | 6/2/1992 | Optical Inspection of Lacquer and Carbon Deposits | Bruce C. Mather, David S. McFalls, Doug L. Michalsky | SwRI |
| 5,114,914 | 5/19/1992 | Fabrication of High Temperature Superconductors | Martin J. Sablik, Colin I. Nichols, Robert E. Anderson | SwRI |
| 5,109,710 | 5/5/1992 | Direct Filter Injection System for Gas Chromatographs | Matthew S. Newkirk, David M. Human | SwRI |
| 5,109,698 | 5/5/1992 | Monopole, Dipole, and Quadrupole Borehole Seismic Transducers | Thomas F. Owen | SwRI |
| 5,096,394 | 3/17/1992 | Positive Displacement Pump With Rotating Reciprocating Piston and Improved Pulsation Dampening | C. Richard Gerlach, Edgar C. Schroeder | Sponsored |
| 5,094,239 | 3/10/1992 | Composite Signal Implementation for Acquiring Oximetry Signals | Jonathan P. Jaeb, Ronald L. Branstetter | Sponsored |
| 5,094,204 | 3/10/1992 | Stratified Charge Injection for Gas-Fueled Rotary Engines | Steven R. King | Sponsored |
| 5,092,305 | 3/3/1992 | Apparatus and Method for Providing an Alternative Fuel System for Engines | Steven R. King | Sponsored |
| 5,083,536 | 1/28/1992 | Compression Piston Ring Groove for an Internal Combustion Engine | Susumu Ariga | SwRI |
| 5,081,391 | 1/14/1992 | Piezoelectric Cylinder Transducer for Producing or Detecting Asymmetrical Vibrations | Thomas E. Owen | SwRI |
| 5,080,190 | 1/14/1992 | Reversible Rigid Coupling Apparatus and Method for Borehole Seismic Transducers | Thomas E. Owen, Jorge O. Parra | SwRI |
| 5,078,795 | 1/7/1992 | In-Situ Formation of Soluble Silicates From Biogenetic Silica In Chemical Fixation/Solidification Treatment of Wastes | J. Conner, William A. Mallow, R. S. Rieber, Harry West | Sponsored |
| 5,074,767 | 12/24/1991 | Positive Displacement Pump with Reciprocating Piston and Improved Lubrication | Richard C. Gerlach, Edgar C. Schroeder | Sponsored |
| 5,067,085 | 11/19/1991 | Optical Robotic Canopy Polishing System | David S. McFalls, Dennis J. Wenzel | SwRI |
| 5,065,019 | 11/12/1991 | Method for Determining Petroleum Saturation in a Subsurface | Glenn T. Darilek, Dewey B. Keeton, III | SwRI |
| 5,064,650 | 11/12/1991 | Controlled-Release Salt Sensitive Capsule for Oral | Chel W. Lew, | SwRI |

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| | | Use and Adhesive System | | |
| 5,050,570 | 9/24/1991 | Open Cycle Internal Combustion Stirling Engine | Robert H. Thring | SwRI |
| 5,038,038 | 8/6/1991 | Optical Sensor for Detecting Quantity of Protective Coating (1906) | R.J. Weniger, E.A. Franke, Glynn Bartlett | SwRI |
| 5,032,844 | 7/16/1991 | Sky Wave Direction Finder | Jackie E. Hipp, Douglas N. Travers | SwRI |
| 5,030,959 | 7/9/1991 | Enhanced Automatic Bearing Indicator System | Edgar C. Hayden | SwRI |
| 5,030,873 | 7/9/1991 | Monopole, Dipole, and Quadrupole Borehole Seismic Transducers | Thomas E. Owen | SwRI |
| 5,028,873 | 7/2/1991 | Tester for a Reed Relay Printed Circuit Board | Timothy L. Koebke | SwRI |
| 5,028,715 | 7/2/1991 | Radioprotective Agents and Their Method of Manufacture | Robert E. Lyle, Jr., William A. McMahon, Donald J. Mangold, Nollie F. Swynnerton | SwRI |
| 5,022,831 | 6/11/1991 | Positive Displacement Pump with Rotating Reciprocating Piston | C.Richard Gerlach, Edgar C. Schroeder | Sponsored |
| 5,020,826 | 6/4/1991 | Vehicle Suspension System | Gary L. Stecklein, Glenn R. Wendel | SwRI |
| 5,012,777 | 5/7/1991 | Improved Internal Combustion Engine | Q.A. Baker, G. O'Neal, H. Mecredy | SwRI/U.S. Dept of Energy |
| 5,008,021 | 4/16/1991 | In-Situ Formation of Soluble Silicates From Biogenetic Silica in Chemical Fixation/Solidification Treatment of Wastes | J. Conner, William A. Mallow, R. S. Rieber, Harry West | Sponsored |
| 5,007,423 | 4/16/1991 | Oximeter Sensor Temperature Control | Ronald L. Branstetter, Jonathan P. Jaeb, Jeffrey M. Gabelmann | Sponsored |
| 5,005,581 | 4/9/1991 | Motion Artifact Detection for Continuous Blood Pressure Monitor | Kevin S. Honeyager | Sponsored |
| 5,003,985 | 4/2/1991 | End Tidal Respiratory Monitor | Curtis D. White, Billy L. Carpenter | Sponsored |
| 5,002,785 | 3/26/1991 | Method of Making Encapsulated Food Products | Chel W. Lew | SwRI |

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| 5,001,932 | 3/26/1991 | Ultrasonic Squirter | Glenn M. Light, William R. Van der Veer | Sponsored |
| 4,994,023 | 2/19/1991 | Electrochemical Drug Release and Article | S.T. Wellinghoff, C.K. Baker | SwRI |
| 4,992,310 | 2/12/1991 | Fire Pouch | Gabriel M. Geib, William A. Mallow, Scott Stropkay | Sponsored |
| 4,987,900 | 1/29/1991 | Apparatus for Positioning Transducer for Blood Pressure Monitor (ID 1792) | Dean C. Winter, Joseph S. Eckerle | Sponsored |
| 4,984,738 | 1/15/1991 | Unit Injector for Staged Injection | Knut Winquist | Sponsored |
| 4,979,125 | 12/18/1990 | Non-Destructive evaluation of ropes by using transvers impulse vibrational wave method | Hegeon Kwun, Gary L. Burkhardt | SwRI |
| 4,966,156 | 10/30/1990 | Pressurization System for Continuous Blood Pressure Monitor Transducer (ID 1979) | William D. Perry, Dean C. Winter | Sponsored |
| 4,958,605 | 9/25/1990 | Fuel Injection Nozzle | Glenn B. O'Neal, Quentin A. Baker, Henry E. Mecredy, III, Daniele Terna | Sponsored |
| 4,958,333 | 9/18/1990 | Shielding for Seismic Cables | John T. O'Brien | SwRI |
| 4,950,374 | 8/21/1990 | Electrophoretic Leak Sealing System | Glenn T. Darilek, Daren L. Laine | SwRI |
| 4,948,912 | 8/14/1990 | Alkylating Agents and Method of Use Thereof | Robert E. Lyle, Jr., Donald J. Mangold, Nolie F. Swynnerton | SwRI |
| 4,947,470 | 8/7/1990 | System for Locating Leaks in Geomembrane-lined Impoundment or Landfill Filled with Material | Glenn T. Darilek | SwRI |
| 4,936,851 | 6/26/1990 | Analytic Bone Implant | W.C. Fox, W.T. Balogh, P.J. Pantermuehl, T.B. Aufdemore, G.R. Holt | Sponsored |
| 4,936,269 | 6/26/1990 | Method and Apparatus for Reduced Oil Consumption and Oil Deterioration in Reciprocating Engines | Kevin D. Beaty | SwRI |
| 4,924,871 | 5/15/1990 | Motion Artifact Detection for Continuous Blood Pressure Monitor Transducer | Kevin S. Honeyager | Sponsored |
| 4,913,111 | 4/3/1990 | Turbulence Generator For Two-Stroker Spark-Assisted Diesel Engines | Susumu Ariga | Sponsored |

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| 4,907,544 | 3/13/1990 | Turbocharged Two-stroke Internal Combustion Engine with Four-stroke Capability | Robert W. Burrahm | SwRI |
| 4,905,706 | 3/6/1990 | Method and Apparatus for Detection of Heart Disease | B. Duff, C. Gibson, D. Winter, H. Peel | Sponsored |
| 4,905,210 | 2/27/1990 | Liquid Impoundment Survey Vehicle Incorporating Positioning Finding & Tracking System | Thomas E. Owen | SwRI |
| 4,903,324 | 2/20/1990 | Ring Around Transceiver | Thomas J. Warnagiris | Sponsored |
| 4,899,760 | 2/13/1990 | Noise Rejecting Detector for Biomedical Signals | Jonathan P. Jaeb, M.E. Converse | Sponsored |
| 4,899,590 | 2/13/1990 | Pump Shaft Inspection System | Glenn M. Light, Edward A. Bloom, Soung-Nan Liu | Sponsored |
| 4,893,631 | 1/16/1990 | Active Element Selection for Continuous Blood Pressure Monitor Transducer | Dennis J. Wenzel, Dean C. Winter, Kevin S. Honeyager | Sponsored |
| 4,892,849 | 1/9/1990 | Ceramic Composition Having Low Friction Coefficient at High Operating Temperatures | James Lankford | U.S. NASA |
| 4,890,496 | 1/2/1990 | Method and Means for Detection of Hydrogen Attack by Ultrasonic Wave Velocity Measurements | Anmol S. Biring, David G. Alcazar, Gary J. Hendrix, John J. Hanley | Sponsored |
| 4,888,140 | 12/19/1989 | Method of Forming fluid Filled Microcapsules | Wade Schlameus, Chel W. Lew | Sponsored |
| 4,885,327 | 12/5/1989 | Swelled Polymeric Decontamination Composition | William A. McMahon, Jr., David A. Trujillo, Robert E. Lyle, Jr. | SwRI |
| 4,883,608 | 11/28/1989 | Polymeric Decontamination Composition | David A. Trujillo, William A. McMahon, Jr., Robert E. Lyle, Jr. | SwRI |
| 4,880,646 | 11/14/1989 | Encapsulated Corn Kernels & Method of Forming the Same | Chel W. Lew, Darren E. Barlow | SwRI |
| 4,880,304 | 11/14/1989 | Optical Sensor for Pulse Oximeter | Jonathan P. Jaeb, Dennis W. Gilstad, Ronald L. Branstetter | Sponsored |
| 4,874,611 | 10/17/1989 | Microencapsulated Ant Bait | Wilfred W. Wilson, | Sponsored |

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| | | | C. Polemenakos, J. Larry Potter, Donald J. Mangold, William W. Harlowe, Herman W. Schlameus | |
| 4,873,947 | 10/17/1989 | Variable Compression Ratio Direct Injection Engine | Thomas W. Ryan, III, Milan J. Maymar, Orin M. Anderson | SwRI |
| 4,866,283 | 9/12/1989 | Optical Inspection of Food Products | Ralph H. Hill | SwRI |
| 4,854,699 | 8/8/1989 | Backscatter Oximeter | Reuben W. Edgar, Jr., | Sponsored |
| 4,852,579 | 8/1/1989 | Photocharacterization and Treatment of Normal Abnormal and Ectopic Endometrium | Dennis W. Gilstad, Ronald L. Branstetter, Ralph H. Hill | Sponsored |
| 4,850,524 | 7/25/1989 | Vertical Strip Clad Welding Method and Apparatus | Wilbur R. Schick, Dwight M. Lloyd | SwRI |
| 4,849,140 | 7/18/1989 | Method for Producing Monosized Ceramic Particle Through Organometallic Swollen Latex Particles | Stephen T. Wellinghoff, Stuart T. Schwab, Carlos D. Herrera | SwRI |
| 4,845,976 | 7/11/1989 | Method and Apparatus of Determining Energy Content of a Diluted Hydrocarbon Gas | James E. Johnson, Raymond J. Magott, Clinton M. Wood | Sponsored |
| 4,836,213 | 6/6/1989 | Pressure Control System for Continuous Blood Pressure Monitor Transducer | Dennis J. Wenzel, Dean C. Winter, Kevin S. Honeyager | Sponsored |
| 4,835,474 | 5/30/1989 | Method and Apparatus for Detecting Subsurface Anomalies | Jorge O. Parra, Thomas E. Owen, Bob M. Duff | SwRI |
| 4,832,039 | 5/23/1989 | Linear, Low Noise Inflation System for Blood Pressure Monitor | William D. Perry, Donald H. Heihn | Sponsored |
| 4,830,017 | 5/16/1989 | Automatic Positioning System for Continuous Blood Pressure Monitor Transducer | William D. Perry, Dean C. Winter | Sponsored |
| 4,828,620 | 5/9/1989 | Calcination of Calcium Carbonate and Blends Thereof | William A. Mallow, Jerome J. Dziuk, Jr. | SwRI |
| 4,813,231 | 3/21/1989 | Engine Exhaust After-Treatment Device | Bruce B. Bykowski | SwRI |
| 4,808,889 | 2/28/1989 | Circuit for Fluorescent Light Power Supply in a Borehole Television Probe | Glenn T. Darilek | SwRI |

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|-------------------|----------------------|--|---|-----------------|
| 4,803,996 | 2/14/1989 | Cardiovascular Monitor | H. Herbert Peel, Merle E. Converse, William H. McGinnis, Donald J. Shirley, John P. Prudhomme | Sponsored |
| 4,802,762 | 2/7/1989 | Optical Inspection of Polymer-Based Materials | Ralph H. Hill | SwRI |
| 4,801,411 | 1/31/1989 | Method and Apparatus for Producing Monosize Ceramic Particles | Stephen T. Wellinghoff, Thomas E. Owen | SwRI |
| 4,800,892 | 1/31/1989 | Apparatus for Inflating Cuff for Blood Pressure Monitoring System | William D. Perry, Donald H. Heihn, H. Herbert Peel | Sponsored |
| 4,798,870 | 1/17/1989 | Reactive Surface for Decontamination | Robert E. Lyle, Jr., Henry F. Hamil | SwRI |
| 4,796,636 | 1/10/1989 | Noninvasive Reflectance Oximeter | Ronald L. Branstetter, Reuben W. Edgar | Sponsored |
| 4,791,811 | 12/20/1988 | Deposit Thickness Measurement | James G. Barbee | SwRI |
| 4,790,326 | 12/13/1988 | Method and Apparatus for Determining Pulse Rate | Bruce C. Mather, William C. Fox, Harry H. Peel, Dennis J. Wenzel | Sponsored |
| 4,784,154 | 11/15/1988 | Interference Resistant Biomedical Transducer | Donald J. Shirley, Merle E. Converse | Sponsored |
| 4,779,626 | 10/25/1988 | Method and Apparatus for Compensating for Transducer Position in Blood Pressure Monitoring System | Harry H. Peel, James M. Burkes | Sponsored |
| 4,775,548 | 10/4/1988 | Method of Producing Ceramic Composition Having Low Friction Coefficient at High Operating Temperatures | James Lankford | SwRI |
| 4,768,481 | 9/6/1988 | Process and Engine Using Compression Ignition of a Homogeneous Fuel-Air Mixture | Charles D. Wood | SwRI |
| 4,766,295 | 8/23/1988 | Electronic Pricing Display System | Malcolm H. Davis, Kent A. Janes, Daniel J. Kleffner, Hugh F. Spence | Sponsored |
| 4,764,317 | 8/16/1988 | Microencapsulation Process and Apparatus | Eugene L. Anderson, William W. Harlowe, Jr., Leon M. Adams, Mary C. Marshall | SwRI |

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| 4,758,792 | 7/19/1988 | Method for Utilizing a Spherical Dipole Probe for Detecting Faults in High Voltage Transmission Line Insulators | James J. Polonis, John P. Harrell, Melvin J. Johnson | SwRI |
| 4,755,757 | 7/5/1988 | Fluid Leak Detection System for Determining the Rate of Fluid Leakage Through a Geomembrane | John W. Cooper | SwRI |
| 4,751,841 | 6/21/1988 | Liquid Impoundment Leak Rate Detector | James C. Biard, Thomas E. Owen | SwRI |
| 4,751,467 | 6/14/1988 | System for Determining Liquid Flow Rate Through Leaks in Impermeable Membrane Liners | John W. Cooper | SwRI |
| 4,740,757 | 4/26/1988 | Method and Apparatus for Locating Leaks in a Multiple Layer Geomembrane Liner | Merle E. Converse, Thomas E. Owen | SwRI |
| 4,736,773 | 4/12/1988 | Electronically Switched Pneumatic Valve System | William D. Perry, Donald H. Heihn | Sponsored |
| 4,731,744 | 3/15/1988 | Position Sensor and System | John P. Harrell, Jr., Douglas L. Michalsky | Sponsored |
| 4,731,096 | 3/15/1988 | Hydrocarbon Compositions of High Elongational Viscosity and Process for Making the Same | Henry F. Hamil, W.D. Weatherford, George E. Fodor | SwRI |
| 4,725,785 | 2/16/1988 | Directional Potential Analyzer Method and Apparatus for Detecting and Locating Leaks In Geomembrane Liners | Merle E. Converse, Kathryn B. Glass, Thomas E. Owen | SwRI |
| 4,724,800 | 2/16/1988 | Ringless Piston Engine | Charles D. Wood, | SwRI |
| 4,720,669 | 1/19/1988 | Geomembrane Leak Assessment Shell Shaped Probe | Thomas E. Owen, | SwRI |
| 4,719,407 | 1/12/1988 | Automated Search Apparatus for Locating Leaks in Geomembrane Liners | Merle E. Converse, David W. Shultz | SwRI |
| 4,715,326 | 12/29/1987 | Multicylinder Catalytic Engine | Robert H. Thring | SwRI |
| 4,714,080 | 12/22/1987 | Method and Apparatus for Non-Invasive Monitoring of Arterial Blood Oxygen Saturation | Reuben W. Edgar, Dennis W. Gilstad, Ronald L. Branstetter | Sponsored |
| 4,711,120 | 12/8/1987 | Method of Wear Monitoring Using Ultrasonic Phase Comparison | Hegeon Kwun, Annol S. Birring, Gurvinder P. Singh, Gary J. Hendrix, David G. Alcazar | Sponsored |
| 4,710,226 | 12/1/1987 | Fluidization of Limestone Slurries and Resultant | William A. Mallow | SwRI |

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| | | Products | | |
| 4,706,228 | 11/10/1987 | Asymmetrical Lateral-Force Seismic Source Transducer | Thomas E. Owen, Edgar C. Schroeder | SwRI |
| 4,701,705 | 10/20/1987 | NMR Moisture Measurements | William L. Rollwitz, | SwRI |
| 4,697,166 | 9/29/1987 | Method and Apparatus for Coupling Transceiver to Power Line Carrier | Thomas J. Warnagiris, William H. McGinnis | Sponsored |
| 4,695,840 | 9/22/1987 | Remote Switch Position Determination Using Duty Cycle Modulation | Glenn T. Darilek | Sponsored |
| 4,689,569 | 8/25/1987 | Directional Antenna System for Use in a Borehole Incorporating Antenna Dipole Elements | Bob M. Duff | SwRI |
| 4,686,941 | 8/18/1987 | Turbulence Generator for Two-Stroke Spark-Assisted Diesel Engines | Susumu Ariga | Sponsored |
| 4,678,166 | 7/7/1987 | Eccentric Loader Guardrail Terminal | Maurice E. Bronstad, James H. Hatton, Jr., Leonard C. Meczkowski | U.S. Dept of Transportation, Federal Hwy Dept. |
| 4,675,604 | 6/23/1987 | Computerized and Motorized Electromagnetic Flux Leakage Internal Diameter Tubular Inspection Device | Mark C. Moyer, William D. Perry, H. Stanley Silvus, Jr., William C. Gibson, Felix N. Kusenberger | Sponsored |
| 4,668,413 | 5/26/1987 | Preservative Oil for Metal Surfaces and Method | Alan A. Johnston, John P. Cuellar | Sponsored |
| 4,663,067 | 5/5/1987 | Transient Soil Erosion & Evaporation Palliative Composition and Method | William A. Mallow, Robert P. Wood | Sponsored |
| 4,655,434 | 4/7/1987 | Energy Absorbing Guardrail Terminal | Maurice E. Bronstad | SwRI |
| 4,654,813 | 3/31/1987 | Electronic Square Root Error Indicator | Carl E. Edlund, Cecil R. Sparks | Sponsored |
| 4,652,876 | 3/24/1987 | Remote Switch Position Determination Using Constant Current Signaling | Glenn T. Darilek | Sponsored |
| 4,651,311 | 3/17/1987 | Electrodeless Spark Discharge Acoustic Pulse Transducer for Borehole Operation | Thomas E. Owen, Edgar C. Schroeder | SwRI |
| 4,638,251 | 1/20/1987 | Method and Apparatus for Measuring Flow of Non-Homogeneous Material in Incompletely Filled Flow Channels | James D. King | SwRI |

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| 4,629,987 | 12/16/1986 | Method and Apparatus for Nuclear Magnetic Resonant Measurement of Flow Velocity | James D. King, Erroll S. Riewerts, William L. Rollwitz | SwRI |
| 4,617,937 | 10/21/1986 | Blood Pressure Monitoring System | Harry H. Peel, John S. Brisco, Mark E. Moczygemba, Robert L. Neatherlin, Brenda A. Sargent | Sponsored |
| 4,614,940 | 9/30/1986 | Micropower DC Voltage indicator | Thomas H. Jaeckle | SwRI |
| 4,608,991 | 9/2/1986 | Method for In-Vivo NMR Measurements in the Human Breast to screen for Small Breast Cancer in an Otherwise Healthy Breast | William L. Rollwitz, | SwRI |
| 4,600,052 | 7/15/1986 | Compact Heat Exchanger | Charles D. Wood, Harvey S. Benson | SwRI |
| 4,599,680 | 7/8/1986 | Packaging Arrangement for Spacecraft Computer | William C. Gibson, William M. Tomlinson, Eugene T. Goldstein, George A. Ferguson | SwRI |
| 4,598,290 | 7/1/1986 | Fiber Optic Penetrator for Offshore Oil Well Exploration and Production | Jerry C. Collins, Charles P. Warner, Jerry A. Henkener, Rolf Glauser | Sponsored |
| 4,597,050 | 6/24/1986 | Apparatus for Indicating Flow of Solid Material Into An Earth Moving Device | Harvey S. Benson, | SwRI |
| 4,586,426 | 5/6/1986 | Multi-Cylinder Piston Engine & Method of Operation Thereof | Edwin W. Dibrell, Glenn B. O'Neal, Wilbur A. Schaich | Sponsored |
| 4,577,337 | 3/18/1986 | X-ray Fluorescence Testing of Laminate Structures | Glenn M. Light, | SwRI |
| 4,573,013 | 2/25/1986 | Magnetic Inspection of Reinforcing Steel Rods in Prestressed Concrete | Felix N. Kusenberger, John R. Barton, George A. Ferguson | U.S. Dept of Transportation |
| 4,570,745 | 2/18/1986 | Method and Apparatus for Minimizing Pulsations in Fluid Transmission Systems | Cecil R. Sparks, Glenn Damewood | Sponsored |
| 4,570,487 | 2/18/1986 | Multibeam Satellite-Pulse Observation Technique for Characterizing Cracks in Bimetallic Coarse-Grained Component | George J. Gruber | SwRI |
| 4,569,484 | 2/11/1986 | Air Blast Type Coal Slurry Fuel Injector | Ramkrishna G. Phatak | U.S. Dept of Energy |

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| 4,565,095 | 1/21/1986 | Sound Transducer Apparatus System and Method | Glenn M. Light, William R. Van der Veer | SwRI |
| 4,562,212 | 12/31/1985 | Method for Repelling Birds Especially Woodpeckers | Samuel J. Tomlinson, Sr, Edward E. Dean, Leon M. Adams | SwRI |
| 4,559,610 | 12/17/1985 | Gas Pumping System Analog | Cecil R. Sparks, Carl E. Edlund, Morton E. Brown | Sponsored |
| 4,546,924 | 10/15/1985 | Fuel Injector | Knut L. Winqvist | SwRI |
| 4,546,735 | 10/15/1985 | Valve Actuator | Glenn B. O'Neal | SwRI |
| 4,545,820 | 10/8/1985 | Soil Stabilizer & Method for Stabilizing Soil | William A. Mallow | Sponsored |
| 4,543,930 | 10/1/1985 | Staged Direct Injection Diesel Engine | Quentin A. Baker | U.S. Dept of Energy |
| 4,542,344 | 9/27/1985 | Detecting Buried Pipeline Depth & Location with Electromagnetic Triangulation | Glenn T. Darilek, Edward H. Cooper | Sponsored |
| 4,536,711 | 8/20/1985 | Method & Apparatus for Measuring Flow in a Pipe or Conduit | James D. King, Erroll S. Riewerts | SwRI |
| 4,531,093 | 7/23/1985 | Method & Apparatus for Coal Analysis & Flow Measurement | William L. Rollwitz, | SwRI |
| 4,531,091 | 7/23/1985 | Magnetic Inspection of Reinforcing Steel Using Sensor Array | Felix N. Kusenberger, Albert S. Lozano, Wilson B. Tarver | U.S. Dept of Transportation |
| 4,525,645 | 6/25/1985 | Cylindrical Bender-Tube Vibration Transducer | Donald J. Shirley, Thomas E. Owen | SwRI |
| 4,524,466 | 6/25/1985 | Continuous Rotation Reversible Pitch Axial Thrust Heart Pump | Charles W. Hall, Orin M. Anderson | SwRI |
| 4,523,294 | 6/11/1985 | Character Spaced Justification Method & Apparatus | Bryan D.C. Winn | SwRI |
| 4,514,691 | 4/30/1985 | Baggage Inspection Apparatus & Method for Determining Presences of Explosives | Armando De Los Santos, James D. King, William L. Rollwitz, George A. Matzkanin, Phillip A. Hornung | SwRI |
| 4,513,576 | 4/30/1985 | Gas Pressure Operated Power Source | Edwin W. Dibrell, Charles D. Wood | Sponsored |

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| 4,503,393 | 3/5/1985 | Method & Apparatus for Detecting Flaws in the Threaded End of an Elongate Member Using Electromagnetic Excitation and Automated Scanning Sensor | Felix N. Kusenberger, William D. Perry, Floyd A. Balter, Mark C. Moyer, Clifford W. Peterson, Cecil M. Teller | Sponsored |
| 4,502,331 | 3/5/1985 | Method for Ultrasonic Inspection of Turbine Disc Rims | Gurvinder P. Singh | SwRI |
| 4,498,231 | 2/12/1985 | Thin Film Strain Transducer | James L. Rand | U.S. NASA |
| 4,497,209 | 2/5/1985 | Nondestructive Testing of Stress in a Ferromagnetic Structural Material Utilizing Magnetically Induced Velocity Change Measurements | Hegeon Kwun, Cecil M. Teller | SwRI |
| 4,494,065 | 1/15/1985 | Electric Capacity Measurement of Erratically Shorted Capacitors | Harvey S. Benson, | SwRI |
| 4,475,953 | 10/9/1984 | Emulsion and Method of Making Same | Allen C. Ludwig, Larry W. Wolter, Henry F. Frazier | SwRI |
| 4,475,168 | 10/2/1984 | Performance Indicator for Compressor Analogs | Morton E. Brown | Sponsored |
| 4,467,283 | 8/21/1984 | Electrical Geophysical Exploration System with Addressable Current Probes | Thomas E. Owen, Glenn T. Darilek, Wendell R. Peters, Edward L. Bryan | Sponsored |
| 4,451,178 | 5/29/1984 | Method for Dispersing or Arresting Lava Flow | Wilfred E. Baker, Joseph Sperrozza, James C.C. Liu | U.S. Army |
| 4,439,249 | 3/27/1984 | Automated Cutting of Plate Steel | Gurvinder P. Singh, William D. Jolly | Sponsored |
| 4,435,984 | 3/13/1984 | Ultrasonic Multiple-Beam Technique for Detecting Cracks in Bimetallic or Coarse-Grained Materials | George J. Gruber | SwRI |
| 4,431,447 | 2/14/1984 | Corrosion Resistant Weld Overlay Cladding Alloy & Weld Deposit | Wilbur R. Schick | SwRI |
| 4,429,371 | 1/31/1984 | Relative Horsepower Indicator | Morton E. Brown | Sponsored |
| 4,425,808 | 1/17/1984 | Thin Film Strain Transducer | James L. Rand | U.S. NASA |
| 4,424,867 | 1/10/1984 | Heat Hardening Sealant-Gel for Flexible Couplings | William A. Mallow | Sponsored |
| 4,424,571 | 1/3/1984 | Reciprocating Compressor Analog | Carl E. Edlund | Sponsored |

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| 4,419,735 | 12/6/1983 | Signal Source for Compressor Analog | Morton E. Brown | Sponsored |
| 4,419,624 | 12/6/1983 | Apparatus for Phase Measurement | Morton E. Brown | Sponsored |
| 4,417,164 | 11/22/1983 | Mechanical Valve Analog | Carl E. Edlund | Sponsored |
| 4,416,229 | 11/22/1983 | Fuel Injector for Diesel Engines | Charles D. Wood | SwRI |
| 4,414,227 | 11/8/1983 | Method for Repelling Birds, Especially Woodpeckers | E.E. Dean, Leon M. Adams | SwRI |
| 4,409,899 | 10/18/1983 | Acoustic Amplitude-Doppler Target Ranging System | Samuel J. Tomlinson, Sr | U.S. Air Force |
| 4,408,533 | 10/11/1983 | Acoustic Amplitude-Threshold Target Ranging System | Thomas E. Owen, Sidney A. Suhler, Wendell R. Peters | U.S. Air Force |
| 4,408,160 | 10/4/1983 | Acoustic Barkhausen Stress Detector Apparatus & Method | James D. King, Gary L. Burkhardt, George A. Matzkanin, John R. Barton | U.S. Air Force |
| 4,406,706 | 9/27/1983 | Yellow Colorant Composition and Paints Utilizing the Same | John M. Dale | SwRI |
| 4,406,500 | 9/27/1983 | Cutting Assembly Including Expanding Wall Segments of Auger | Martin B. Treuhaft, Michael S. Oser | U.S. Dept of Energy |
| 4,404,646 | 9/13/1983 | Piping Network Analog Apparatus | Carl E. Edlund, Cecil R. Sparks | Sponsored |
| 4,403,576 | 9/13/1983 | Fuel System for and a Method of Operating a Spark-Ignited Internal Combustion Engine | Edward Dimitroff, John A. Vitkovits | SwRI |
| 4,400,036 | 8/23/1983 | Corner-Cutting Mining Assembly | John A. Bradley | U.S Dept of Energy |
| 4,390,828 | 6/28/1983 | Battery Charger Circuit | Merle E. Converse, Glenn T. Darilek | Sponsored |
| 4,387,376 | 6/7/1983 | Phase Linear Interferometer System and Method | William M. Sherrill, Douglas N. Travers, Paul E. Martin | U.S. Army |
| 4,352,983 | 10/5/1982 | Method & Apparatus for Measuring Concentration of Suspended Oils In Water | H. Stanley Silvus, Francis M. Newman, Robert K. Swanson | SwRI |
| 4,339,719 | 7/13/1982 | Conductivity Sensor for Monitoring Corrodents Being Deposited in a Steam Turbine | Archie E. Rhines, Steven B. Hugg | Sponsored |

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| 4,335,345 | 6/15/1982 | Current Limiting Circuit for Switching Regulator | Merle E. Converse | Sponsored |
| 4,299,128 | 11/10/1981 | Ultrasonic Satellite-Pulse Technique for Characterizing Defects of Arbitrary Shape | George J. Gruber | SwRI |
| 4,296,378 | 10/20/1981 | Apparatus Providing Enhanced Detection of Specimens in Inhomogeneous Fields | J.D. King | SwRI |
| 4,290,816 | 9/22/1981 | Sulfur Compounds & Method of Making Same | Allen C. Ludwig, John M. Dale, Henry F. Frazier | SwRI |
| 4,262,359 | 4/14/1981 | Fire V Insertion Unit | William E. Cory, Allen B. Cunningham | U.S. Air Force |
| 4,249,131 | 2/3/1981 | Method and Apparatus for Measuring Electrostatic Charge Density | Thomas E. Owen | U.S. Dept of Commerce |
| 4,244,053 | 1/6/1981 | Privacy Communication Method & System | Paul E. Martin, Marvin R. Clinch, Calvin R. Graf, Robert B. Fenwick | U.S. Air Force |
| 4,221,597 | 9/9/1980 | Additive for Improved Performance of Silicate Cement | William A. Mallow | Sponsored |
| 4,216,476 | 8/5/1980 | Digital Electronic Commutator for Radio Direction Finding System | Richard Lorenz, Paul E. Martin | U.S. Navy |
| 4,210,103 | 7/1/1980 | Fuel System for and a Method of Operating a Spark-Ignited Internal Combustion Engine | Edward Dimitroff, John A. Vitkovits | SwRI |
| 4,207,572 | 6/10/1980 | Skywave DF Antenna System | Jackie E. Hipp, Douglas N. Travers, Terence C. Green, William M. Sherrill, Richard L. Johnson | SwRI |
| 4,197,478 | 4/8/1980 | Electronically Tunable Resonant Accelerometer | Howard S. Silvus | SwRI |
| 4,194,574 | 3/25/1980 | Draft Power Sensor & Method for Improving Performance in Earth-Moving Equipment | Harvey S. Benson, Charles D. Wood | SwRI |
| 4,181,943 | 1/1/1980 | Speed Control Device for Trains | Lloyd I. Mercer, Sr., Steven B. Hugg | SwRI |
| 4,173,455 | 11/6/1979 | Fire-Safe Hydrocarbon Fuels | George E. Fodor, William D. Weatherford, Bernard R. Wright | U.S. Army |

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| 4,168,860 | 9/25/1979 | Multi-Purpose Convertible Seat Construction | Luis R. Garza, William J. Astleford | Sponsored |
| 4,166,972 | 9/4/1979 | NMR Discrimination Apparatus and Method Therefor | William L. Rollwitz, James D. King, George A. Matzkanin | SwRI |
| 4,165,649 | 8/28/1979 | Apparatus & Method for Ultrasonic Inspection of Highly Attenuative Materials | Amos S. Greer, Jr. | SwRI |
| 4,163,477 | 8/7/1979 | Method & Apparatus for Closing Underwater Wells | John L. Johnson, Billy W. Vanzant | SwRI |
| 4,160,386 | 7/10/1979 | Ultrasonic Inspection System Including Apparatus and Method for Tracking and Recording the Location of and Inspection Probe | Jerry L. Jackson, Theodore L. Allen, Wayne T. Flach, William D. Jolly, Steve A. Cerwin | SwRI |
| 4,143,426 | 3/13/1979 | Permanently Attached Artificial Limb | C. William Hall, William A. Mallow, Fred Otis Hoes | U.S. Veterans Affairs |
| 4,126,106 | 11/21/1978 | Mixed Cycle Internal Combustion Engine | Julius E. Witzky | SwRI |
| 4,113,315 | 9/12/1978 | Combustion Apparatus for Generating Repetitive Explosions | Rosser B. Melton, Jr., John W. Colburn, Jr., Charles D. Wood, III | SwRI |
| 4,100,491 | 7/11/1978 | Automatic Self-Cleaning Ferromagnetic Metal Detector | Francis M. Newman, Jr., H. Stanley Silvus, Jr. | SwRI |
| 4,096,945 | 6/27/1978 | System for Injecting Particulate Material into the Combustion Chamber of a Repetitive Combustion Coating Apparatus | Rosser B. Melton, Elbert M. Hubbard | SwRI |
| 4,074,444 | 2/21/1978 | Method & Apparatus for Communicating with People | Charles J. Laenger, Sr., Sam R. McFarland, Harry H. Peel | SwRI |
| 4,030,939 | 6/21/1977 | Cement Composition | William A. Mallow | SwRI |
| 4,030,347 | 6/21/1977 | Biaxial Capacitance Strain Transducer | Elwood B. Norris, Lester M. Yeakley | Sponsored |
| 4,026,145 | 5/31/1977 | Hydraulic Grip for Tubular Mechanical Properties Specimen | Andrew Nagy, Ulric S. Lindholm, Lester M. Yeakley | U.S. Air Force |
| 4,022,857 | 5/10/1977 | Production of Foamed Sulfur Compositions | John M. Dale, Allen C. Ludwig | Sponsored |

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| 4,011,886 | 3/15/1977 | Sleeve Valve | Charles D. Wood | SwRI |
| 4,011,179 | 3/8/1977 | Continuous Sulfur Foam Preparation Using Polyisocyanates | Gar Lok Woo, John M. Dale, Allen C. Ludwig | Sponsored |
| 3,990,903 | 11/9/1976 | Hydrothermal Cement Method of Cementing Well Bores | William A. Mallow, | SwRI |
| 3,974,939 | 8/17/1976 | System for Injecting Particulate Material into the Combustion Chamber of a Repetitive Combustion Coating Apparatus | Rosser B. Melton, Jr., Elbert M. Hubbard | SwRI |
| 3,973,263 | 8/3/1976 | Sensitivity Improvement of Spaced-Loop Antenna by Loop Antenna by Capacitive Gap Loading | Terence C. Green, | U.S. Navy |
| 3,967,761 | 7/6/1976 | System for Injecting Particulate Material into the Combustion Chamber of a Repetitive Combustion Coating Apparatus | Rosser B. Melton, Jr., Elbert M. Hubbard | SwRI |
| 3,950,659 | 4/13/1976 | Method of Producing Transducers with Phase, Area & Depth Controlled Polarization | Norman E. Dixon, William D. Jolly | Sponsored |
| 3,939,477 | 2/17/1976 | Quadrupole Adcock Direction Finder & Antenna Therefor | Terence C. Green, William G. Guion, Douglas N. Travers, William M. Sherrill | SwRI |
| 3,924,897 | 12/9/1975 | Earth Ripper Employing Repetitive Explosions | John W. Colburn, Jr., Charles D. Wood, Ronald J. Mathis | SwRI |
| 3,921,533 | 11/25/1975 | Wheel Assembly for a Vehicle Moving through a Tubular Conduit | Freddy R. Szenasi, Richard M. Baldwin | Sponsored |
| 3,918,944 | 11/11/1975 | Lead Trap | Martin B. Treuhaft, Charles D. Wood | Sponsored |
| 3,918,937 | 11/11/1975 | Particulated Lead Trap System | John C. Holloway, Herbert W. Barch, Martin B. Treuhaft, Charles D. Wood | Sponsored |
| 3,915,381 | 10/28/1975 | Method & Apparatus for Applying Particulate Coating Material to a Work Piece | Rosser B. Melton, John M. Clark, Ronald Mathis, William D. Weatherford, Charles D. Wood | SwRI |
| 3,913,015 | 10/14/1975 | Tuned Current Probe | Edwin L. Bronaugh, Roger A. Southwick | U.S. Air Force |

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| 3,910,494 | 10/7/1975 | Valveless Combustion Apparatus | Rosser B. Melton, Jr. | SwRI |
| 3,910,112 | 10/7/1975 | Flow Meter | C. Richard Gerlach | SwRI |
| 3,898,038 | 8/5/1975 | Method & Apparatus for Sterilizing a Biologically Contaminated Enclosure | Eugene L. Anderson | SwRI |
| 3,893,578 | 7/8/1975 | System for Injecting Particulate Material into the Combustion Chamber of a Repetitive Combustion Coating Apparatus | Rosser B. Melton, Jr., Elbert M. Hubbard | SwRI |
| 3,880,568 | 4/29/1975 | Combustion Method & Apparatus for Generating Repetive Explosions | Rosser B. Melton, Jr., John W. Colburn, Jr., Charles D. Wood | SwRI |
| 3,875,034 | 4/1/1975 | Method and Apparatus for Odor Abatement | Leon M. Adams, Henry F. Hamil | Sponsored |
| 3,856,539 | 12/24/1974 | Solidified Silica Foam Product & Process | William A. Mallow, Richard A. Owen, Ethelbert J. Baker, Jr. | Sponsored |
| 3,840,232 | 10/8/1974 | Frangible Flying Target | Allen C. Ludwig, John M. Dale | Sponsored |
| 3,839,848 | 10/8/1974 | Method & Apparatus for Cleaning Air | Charles D. Wood, John M. Clark, Jr. | SwRI |
| 3,824,596 | 7/16/1974 | Automatic Sector Indicating Direction Finder System | William G. Guion, Terence C. Green | SwRI |
| 3,823,608 | 7/16/1974 | Torque Transducer | Pontie Pantermuehl, George F. Munsch | Sponsored |
| 3,823,019 | 7/9/1974 | Mine Wall Coating | John M. Dale, Allen C. Ludwig | U.S. Dept of Interior |
| 3,822,531 | 7/9/1974 | Device for Agglomerating and Separating Particulates from a Gas | John P. Wisniewski, Martin B. Treuhaft | Sponsored |
| 3,815,135 | 6/4/1974 | Direction Finding Interferometer for a Linear FM Signal | Paul E. Martin, William M. Sherrill, Terence C. Green | U.S. Air Force |
| 3,801,346 | 4/2/1974 | Method for Applying Particulate Coating Material to a Work Piece | Rosser B. Melton, Jr., John M. Clark, Jr., Ronald J. Mathis, Wm. D. Weatherford, Jr., Charles D. Wood | Sponsored |
| 3,792,348 | 2/12/1974 | Method for Determining Stress in a Ferromagnetic Member Using Manganetoabsorption | William L. Rollwitz, John Arambula, | SwRI |

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| | | | John P. Claassen | |
| 3,787,144 | 1/22/1974 | Explosive Pumping & Dredging Method and Apparatus | Charles D. Wood | SwRI |
| 3,783,370 | 1/1/1974 | Method and Circuit for Compensating Barkhausen Signal Measurements in Magnetic Materials Having a Variable Geometry | James A. Birdwell, John R. Barton, Clarence G. Gardner | SwRI |
| 3,782,867 | 1/1/1974 | Fluid Power Converter | Charles R. Gerlach, Edgar C. Schroeder | Sponsored |
| 3,773,469 | 11/20/1973 | Method and Apparatus for Determining the Amount of Certain Components in a Substance, Such as Inorganic Carbon and the like | Leland L. Hiser, Clarence A. Boldt, David S. Tarazi, Oscar Saenz | SwRI |
| 3,766,831 | 10/23/1973 | Compound Axial Torsional Hydraulic Actuator | Lester M. Yeakley | SwRI |
| 3,764,892 | 10/9/1973 | Spectroscopic Apparatus | William L. Rollwitz | SwRI |
| 3,756,416 | 9/4/1973 | Apparatus Having a Filter Panel Disposed Across a Fluid Passageway | Charles D. Wood | SwRI |
| 3,755,825 | 9/4/1973 | Artificial Heart Consisting of a Biventricular Pump with Control Mechanisms for Total Replacement of Human Heart | Michael E. DeBakey, William Hall | U.S. Dept of Health, Education, and Welfare |
| 3,752,240 | 8/14/1973 | Method of and Apparatus for Providing an Impact to a Vehicled Carried Penetrating Tool | Charles D. Wood, John M. Clark | SwRI |
| 3,750,837 | 8/7/1973 | Explosive Seismic Energy Source with Quick Release Valve | Charles D. Wood | SwRI |
| 3,746,971 | 7/17/1973 | Sampling Spinning Cell for NMR of Flowing Systems | William H. Storey, Jr., Daniel A. Montalvo | U.S. Army |
| 3,744,018 | 7/3/1973 | Method of and Apparatus for Producing a Repetitive Seismic Impulse | Charles D. Wood | SwRI |
| 3,741,898 | 6/26/1973 | Foamed Product from Sodium Silicate and Process of Manufacture Thereof | William A. Mallow, Richard A. Owen, Ethelbert J. Baker, Jr. | SwRI |
| 3,729,699 | 4/24/1973 | Underwater Wet Electrical Connector | Edward M. Briggs, William E. Oakey, Rodgers E. Rimmer | SwRI |
| 3,703,886 | 11/28/1972 | Pumpless Stratified Charge Gas Engine | Julius E. Witzky | Sponsored |
| 3,680,287 | 8/1/1972 | Air Filter | Charles D. Wood, | Sponsored |

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| | | | S.A. Olsen, Jimmie C. Potter | |
| 3,643,455 | 2/22/1972 | Compositions for Absorption Refrigeration System | William E. Hensel, Jr., William W. Harlowe, Jr. | Sponsored |
| 3,643,181 | 2/15/1972 | Amplitude and/or Frequency-Modulated Paramagnetic Resonance | William A. Stirrat, William L. Rollwitz, Gilbert A. Persyn | U.S. Army |
| 3,634,101 | 1/11/1972 | Fresh Peach Flavor Addictive Composition and Method of Enhancing the Flavor of Freeze-Dehydrated Peaches | John W. Rhoades, James W. Register, Jr., John D. Millar | U.S. Navy |
| 3,634,098 | 1/11/1972 | Fresh Apricot Flavor Addictive Composition and Method of Enhancing the Flavor of Freeze-Dehydrated Apricots | John W. Rhoades, James W. Register, Jr., John D. Millar | U.S. Navy |
| 3,627,456 | 12/14/1971 | Vanes for Fluid Power Converter | Charles R. Gerlach | Sponsored |
| 3,623,116 | 11/23/1971 | Ferrite Core Crossed Space Loop Antenna | Terry C. Green, Ruell Solberg, Jr. | U.S. Navy |
| 3,612,986 | 10/12/1971 | Sensing Apparatus for Use with Magnetoabsorption Apparatus Using Semicylindrical Coils | William L. Rollwitz, John P. Classen | SwRI |
| 3,609,978 | 10/5/1971 | Method of Remotely Constructing a Room | Jarvis D. Michie, Robert C. DeHart | U.S. Atomic Energy Commission |
| 3,608,990 | 9/28/1971 | Container Having Internal Object Support Means & Pivoted Top Section | Ethelbert J. Baker, William H. Arlitt | SwRI |
| 3,600,116 | 8/17/1971 | Air-Control System for Apparatus Displacing Material by Combustive Explosions | John M. Clark, Allan R. Nye, Charles D. Wood | SwRI |
| 3,596,262 | 7/27/1971 | Telemetry Measuring Apparatus | William L. Rollwitz, Harvey S. Benson | SwRI |
| 3,585,577 | 6/15/1971 | Ultrasonic Transceiver | William L. Rollwitz, Harvey S. Benson | SwRI |
| 3,581,077 | 5/25/1971 | Electrical Analog Model for Fluid Flow Transmission System | Glenn Damewood, Cecil R. Sparks, James D. King | Sponsored |
| 3,578,417 | 5/11/1971 | Vaporizing Sulfur from Ore by Direct Contact with Heated Pebbles | John M. Dale | Sponsored |
| 3,574,404 | 4/12/1971 | Digging Apparatus | Thomas J. Hogan | Sponsored |

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| 3,572,273 | 3/23/1971 | Apparatus for Breaking a Layer of Ice on a Body of Water by Repetitive Combustive Explosions | Charles D. Wood | SwRI |
| 3,572,098 | 3/23/1971 | Mass Measuring Instrument Spring System | Joseph W. Fogwell | U.S. Navy |
| 3,556,236 | 1/19/1971 | Detector Systems | William E. Cory, Raymond B. Wangler | Sponsored |
| 3,527,197 | 9/8/1970 | Indirect Blood Pressure Measurement | Ray W. Ware, Charles J. Laenger, Thomas E. Owen | SwRI |
| 3,524,815 | 8/18/1970 | Lithium Bromide-Lithium Compositions for Absorption Refrigeration System | William E. Hensel, Jr., William W. Harlowe, Jr. | Sponsored |
| 3,508,266 | 4/21/1970 | Solid State Commutator | Paul E. Martin | U.S. Navy |
| 3,496,633 | 2/24/1970 | Method of Producing an Improved Elastomeric Strain Gauge | Jarvis D. Michie, Leonard U. Rastrelli, Eugene L. Anderson | U.S. Navy |
| 3,490,024 | 1/13/1970 | Direction Finder | William M. Sherrill, Richard Lorenz | U.S. Navy |
| 3,461,577 | 8/19/1969 | Method of & Apparatus for Materials Displacing Material (REDSOD) | John M. Clark, Jr., Robinson N. Brown, Roger H. Hemion | SwRI |
| 3,446,298 | 5/27/1969 | Weighing Apparatus | William E. Cory, Melvin A. Schrader | Sponsored |
| 3,440,064 | 4/22/1969 | Fire-Retardant Sulphur Compositions | Allen C. Ludwig | Sponsored |
| 3,436,538 | 4/1/1969 | Method of Measuring Fissionable Material Content of Fuels | Demetrios L. Basdekas | U.S. Atomic Energy Commission |
| 3,431,551 | 3/4/1969 | Depth Measuring Ultrasonic Transceiver | William L. Rollwitz, Harvey S. Benson | SwRI |
| 3,427,872 | 2/18/1969 | Method & System for Investigating the Stress Condition of Magnetic Materials | Richard W. Leep, Richard L. Pasley | SwRI |
| 3,425,399 | 2/4/1969 | Stratified Charge Gas Engine | Raymond G. Ward, Julius E. Witzky | Sponsored |
| 3,412,243 | 11/19/1968 | X-ray Apparatus for Measuring Internal Strains in an Elastomeric Body Having Spaced Embedded Therein | Russell D. Williams, Eugene L. Anderson, Leonard U. Rastrelli | U.S. Navy |

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| 3,395,564 | 8/6/1968 | Elastomeric Strain Module & Method of Calibration | Leonard W. Rastrelli, Eugene L. Anderson | U.S. Navy |
| 3,389,194 | 6/18/1968 | Encapsulation-Submerged Nozzle | George R. Somerville | SwRI |
| 3,379,970 | 4/23/1968 | Magnetic Crack Detector for Ferromagnetic Tubing | Felix N. Kusenberger, Herman F. Barsun, Joseph W. Fogwell | U.S. Navy |
| 3,360,907 | 1/2/1968 | Apparatus for Cleaning Air Filters | John M. Clark, Jr., Robinson W. Brown, Ross F. Meriwether | SwRI |
| 3,357,170 | 12/5/1967 | Railroad Track Weight Detector | William E. Cory, Jack B. Johnson | Sponsored |
| 3,350,924 | 11/7/1967 | Apparatus for Ultrasonic Inspection | James D. King | SwRI |
| 3,338,092 | 8/29/1967 | Dynamic Biaxial Testing Machine | Ulric S. Lindholm, Luis R. Garza, Ethelbert J. Baker, Jr. | U.S. Army |
| 3,337,355 | 8/22/1967 | Solid Foam Sulphur and Process for the Manufacture Thereof | John M. Dale, Allen C. Ludwig | Southwest Patents, Inc. |
| 3,329,954 | 7/4/1967 | Eight Loop Antenna & Method of Scanning Same | Douglas N. Travers | U.S. Navy |
| 3,324,708 | 6/13/1967 | Bearing Test Assembly with Rotary Cage Follower | Horace E. Staph, Walter A. Gunkel, George F. Munsch | U.S. Air Force |
| 3,316,115 | 4/25/1967 | Marking Composition | Marion D. Barnes, John M. Dale | Sponsored |
| 3,310,612 | 3/21/1967 | Encapsulating Method & Apparatus Sloped Head | George R. Somerville | SwRI |
| 3,304,528 | 2/14/1967 | Elastomeric Strain Gauge | Leonard W. Rastrelli, Jarvis D. Michie, Eugene L. Anderson | U.S. Navy |
| 3,304,158 | 2/14/1967 | Purification of Dark Sulfur | John M. Dale | Sponsored |
| 3,289,468 | 12/6/1966 | Ultrasonic Transducer Positioning Apparatus | William R. Van Der Veer, Walter Gunkel | SwRI |
| 3,289,135 | 11/29/1966 | Strain Gauges | Eugene L. Anderson, Leonard U. Rastrelli | U.S. Navy |
| 3,283,569 | 11/8/1966 | Method & Apparatus for Indicating Performance Characteristics of Reciprocating Piston Machines | James D. King, Carl E. Edlund | Sponsored |

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| 3,276,249 | 10/4/1966 | Ultrasonic Measuring Apparatus | James D. King | Sponsored |
| 3,255,626 | 6/14/1966 | Ultrasonic Apparatus | William R. Van Der Veer | SwRI |
| 3,244,973 | 4/5/1966 | Magnetic Inspection Method | Herbert I. Hoffman | SwRI |
| 3,221,544 | 12/7/1965 | Ultrasonic Inspection System | Walter A. Gunkel | SwRI |
| 3,209,736 | 10/5/1965 | Engine | Julius E. Witzky | SwRI |
| 3,177,861 | 4/13/1965 | Internal Combustion Engine | Roy D. Quillian | SwRI |
| 3,159,227 | 12/1/1964 | Weighing Apparatus | Seymour H. Raskin, Frank G. Vitiello | Sponsored |
| 3,154,059 | 10/27/1964 | Stratified Spark Ignition Internal Combustion Engine | Julius E. Witzky, John M. Clark, Jr. | SwRI |
| 3,130,850 | 4/28/1964 | Collapsible Container | William E. Oakey, Ethelbert J. Baker, Willis M. Mynatt, Julius W. Millard, Norman Weisberg | SwRI |
| 3,097,532 | 7/16/1963 | Liquid Sampling Device | Robinson W. Brown, William E. Oakey | Sponsored |
| 3,096,434 | 7/2/1963 | Multiple Integration Flow Computer | James D. King | Sponsored |
| 3,093,827 | 6/11/1963 | Three Loop Direction Finder Antenna for Shipboard Use | Douglas N. Travers | U.S. Navy |
| 3,056,613 | 10/2/1962 | Quick-Break Maritime Coupling | John M. Dale | Sponsored |
| 3,056,294 | 10/2/1962 | Volumetric Drum Meter | Robinson W. Brown, William E. Oakey | Sponsored |
| 3,045,175 | 7/17/1962 | Second-Harmonic Moisture Meter for Continuous Flow | William L. Rollwitz | Sponsored |
| 3,015,128 | 1/2/1962 | Encapsulation-Centrifugal Head | George R. Somerville | SwRI |
| 3,006,649 | 10/31/1961 | Animal Immobilizer | Edward J. Gesick, Willis L. Mynatt, John W. McCoy | SwRI |
| 3,005,343 | 10/24/1961 | Volumetric Drum Meter | Robinson W. Brown, William E. Oakey | Sponsored |

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| 2,951,638 | 6/6/1960 | Gas Pumping System Analog | John V. Hughes, William L. Rollwitz | Sponsored |
| 2,885,633 | 5/5/1959 | Electrical Crevasse Detector | John C. Cook | U.S. Army |
| 2,880,172 | 3/31/1959 | Process for Extinguishing Burning Magnesium & Other Combustible Metals | Roy T. McCutchan | SwRI |
| 2,834,166 | 5/13/1958 | Packaging Machine | Joseph W. Fogwell, Herbert Hoffman, William Oakey, Willis L. Donaldson | Sponsored |
| 2,715,013 | 8/9/1955 | Apparatus For Erecting a Building | Thomas B. Slick | Sponsored |
| 2,686,420 | 10/11/1955 | Method of Erecting Buildings | Philip N. Youtz | Sponsored |
| 2,535,099 | 12/26/1950 | Brush Puller | Thomas Slick | Sponsored |
| H2,116 | 4/5/2005 | Method for Detecting, Locating and Characterizing Single and Multiple Fluid-Filled Fractures in Fractured Formations | Jorge Octavio Parra, Pei-Cheng Xu | SwRI |
| H1,793 | 4/6/1999 | Thermal Transient Test Thermal Transient Test System | R.H. Peterson, K.S. Pickens | SwRI |
| RE40,515 | 9/23/2008 | Method and Apparatus for Inspecting Pipelines from an In-Line Inspection Vehicle Using Magnetostrictive Probes | Hegeon Kwun, Sang-Young Kim | SwRI |
| RE40,129 | 3/4/2008 | Wide Bandwidth Multi-Mode Antenna | Thomas J. Warnagiris | SwRI |
| RE37,718 | 5/28/2002 | Ion Beam Modification of Bioactive Ceramics to Accelerate Biointegration of Said Ceramics | Cheryl Blanchard, Geoffrey Dearnaley, James Lankford, Jr. | SwRI |
| RE31,575 | 5/1/1984 | Sulfur Compounds and Method of Making Same | Allen C. Ludwig, John M. Dale, Henry F. Frazier | SwRI |