

## Current Patents Available for Licensing 12/06

Patent Number	Case Number	Patent Expires	Title
5,082,293	LEW-15085-1	11/9/2010	High Temperature, Flexible, Fiber-Seals
5,322,924	LEW-15043-1	10/7/2011	Fluorine Containing Addition Polyimides with Enhanced Processability
5,330,590	LEW-15697-1	5/26/2013	High Temperature Creep and Oxidation Resistant Chromium Silicide Matrix Alloy Containing Molybdenum
5,496,644	LEW-15561-2	12/20/2013	Plasma Sprayed Mullite Coatings on Silicon-Base Ceramics
5,693,241	LEW-20002-1	7/15/2016	Atmospheric Pressure Atomic And Ionic Oxygen Etcher
5,866,518	LEW-16183-1	1/16/2017	PS300 - Self Lubricating Readily Polished High Temperature Composite
5,905,568	LEW-16457-1	12/15/2017	Stereo Imaging Velocimetry
5,965,076	LEW-15805-1	9/22/2017	Process for Fabrication of Soft Tissue Implants with Microscopic Surface Roughness
5,978,500	LEW-16345-1	8/27/2017	High Speed Gear Failure Digital Video Imaging System
6,003,388	LEW-16469-1	9/17/2017	Method Of Deploying Or Dispensing Liquid Drops And Gas Bubbles Using Acoustic Radiation Pressure
6,007,068	LEW-15870-1	11/25/2016	Low to High Temperature Dynamic Face Seal
6,027,954	LEW-16519-1	5/29/2018	Method Of Stabilization Of SiC-Based Gas Sensor Using An Alloy Deposited On The C-face Of SiC
6,029,518	LEW-16470-1	9/17/2017	Method Of Manipulating Liquids Employing Acoustic Phased Array Generated Acoustic Radiation Pressure And Acoustic Streaming
6,037,499	LEW-16384-2	1/23/2018	Polyimides Bases On 4,4' - Bis (4-Aminophenoxy - Substituted Biphenyl)
6,039,325	LEW-16231-2	10/17/2016	Resilient Braided Rope Seal
6,039,930	LEW-16342-2	4/4/2017	Elemental Metals Distributed On A Carbon Substrate
6,059,784	LEW-16638-1	10/8/2018	Capacitance-Based "Delta" Extensometer
6,064,156	LEW-16056-1	9/14/2018	Design And Manufacturing Processes For Long-Life Hollow Cathode Assemblies
6,069,278	LEW-16384-3	1/23/2018	Aromatic Diamines And Polyimides
6,071,595	LEW-15898-2	10/26/2014	Substrate With Low Secondary Emissions
6,078,223	LEW-16440-1	8/14/2018	Frequency-Locked Superconductor/Ferroelectric Thin Film Local Oscillator
6,081,235	LEW-16398-1	4/30/2018	High Resolution Scanning Reflectarray Antenna
6,093,454	LEW-16390-2	10/29/2017	Controlled Thermal Expansion Coat For Thermal Barrier Coatings
6,103,210	LEW-16342-3	4/4/2017	Elemental Metals Or Oxides Distributed On A Carbon Substrate
6,103,864	LEW-16691-1	1/14/2019	PMR Extended Shelf Life Technology - A Chemical Process To Significantly Retard The Premature Aging Of PMR Resin Solutions And PMR Prepregs
6,151,897	LEW-16685-1	4/6/2019	Actuator Control Using Shape Memory Alloys, Microsystems And Optically Controlled Switches
6,165,874	LEW-16374-2	12/16/2018	Method For Growth Of Crystal Surfaces And Growth Heteroepitaxial Single Crystal Films Thereon
6,198,760	LEW-16681-1	5/27/2019	Selective Emitter Pumped Rare Earth Laser
6,200,094	LEW-16644-1	6/18/2019	Wave Augmented Diffuser For Centrifugal Compressors

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6,240,932	LEW-16056-2	9/14/2018	Processes For Cleaning A Cathode Tube And Subassemblies In A Hollow Cathode Assembly Design And Manufacture Of Long Life Hollow Cathode Assemblies
6,262,223	LEW-16968-1	2/1/2020	Development Of Processable Polyimides For High Temperature Application With The Use Of Triamine Additives
6,265,112	LEW-15817-1	7/24/2018	Nickel Fiber Electrode for Nickel Based Battery System
6,272,846	LEW-16636-1	4/14/2019	Non-Toxic, Dual-Mode Satellite Fuel
6,274,699	LEW-17012-1	3/23/2020	Cyclohexene Endcaps For Polymers With Improved Thermal Oxidative Stability
6,291,838	LEW-16519-2	5/29/2018	Gas Sensing Diode
6,292,143	LEW-16792-1	5/4/2020	Multi-Mode Broadband Patch Antenna
6,303,744	LEW-16987-1	3/23/2020	New Latent Reactive Endcaps For Polymers With Improved Thermal Oxidative Stability
6,308,113	LEW-16690-1	9/29/2020	Programmable Motion System
6,311,477	LEW-16636-5	4/14/2019	Reduced Toxicity Fuel Satellite Propulsion System Including Axial Thruster And ACS Thruster Combination
6,314,718	LEW-16636-3	4/14/2019	Reduced Toxicity Fuel Satellite Propulsion System Including Catalytic Decomposing Element
6,316,078	LEW-16803-1	3/14/2020	Segmented Thermal Barrier Coating
6,367,250	LEW-16685-2	4/6/2019	Actuator Control Using Shape Memory Alloys, Microsystems And Optically Controlled Switches
6,368,482	LEW-17041-1	9/19/2020	Method Of Improving The Plating Process Employing Directed High Intensity Acoustic Beams
6,378,291	LEW-16636-2	4/14/2019	Reduced Toxicity Fuel Satellite Propulsion System Including Catalytic Decomposing Element With Hydrogen Peroxide
6,380,685	LEW-16056-3	9/14/2018	Procedure For Making A Hollow Cathode Assembly
6,382,024	LEW-16999-1	6/28/2020	Thermocouple Boundary Layer Rake
6,385,973	LEW-17068-1	7/12/2021	Micro-Scalable Device For Thermal Control
6,393,831	LEW-16790-1	11/17/2020	Exoskeletal Engine
6,426,296	LEW-17022-1	9/8/2020	Etch-Stop Fuse For Precision Thickness And Depth Control
6,446,979	LEW-16684-1	6/27/2020	Thermal Barrier Braided Rope Seal
6,461,944	LEW-17116-1	2/7/2021	Method For Growth Of Step-Free SiC Crystal Surfaces And Fabrication Of Electronic Device Structures Thereon
6,470,672	LEW-17017-1	7/16/2021	Minimally Intrusive Supersonic Injectors For Augmented Rocket And RBCC/Scramjet Propulsion Systems
6,486,230	LEW-17133-2	4/5/2021	Polyesters By Photochemical Cyclopolymerization
6,488,771	LEW-17186-1	9/25/2021	Method For Growing Low-Defect Single Crystal Heteroepitaxial Films
6,513,730	LEW-17110-1	3/21/2021	MEMS-Based Spinning Nozzle With Pre-Mix Chamber Design And Manufacture Of Long-Life Hollow Cathode Assemblies
6,539,818	LEW-16056-4	9/14/2018	Assemblies
6,542,226	LEW-17111-1	6/4/2021	Planar Particle Imaging And Doppler Velocimetry (PPIDV)
6,546,714	LEW-16636-4	4/14/2019	Reduced Toxicity Fuel Satellite Propulsion System Including Plasmatron
6,558,621	LEW-16871-1	6/23/2020	Method And Apparatus For Removal Of Biologically Active Contaminants From The Surfaces Of Surgical Implants And Other Biomedical Components And Materials
6,581,481	LEW-16638-2	5/7/2021	Capacitive Extensometer

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6,593,389	LEW-17133-1	4/5/2021	High Performance Polymers From The Diels-Alder Trapping Of Photochemically Generated Intermediates
6,603,535	LEW-17241-1	8/30/2022	A General Purpose Stereo Imaging Velocimetry Technique For Space And Industrial Applications
6,647,809	LEW-17222-1	8/29/2022	A Method Of Packaging A Silicon Carbide High Temperature Anemometer
6,660,110	LEW-17206-1	4/8/2022	Economical Dual Microstructure Heat Treatment Apparatus/Process
6,667,725	LEW-17167-1	7/11/2022	Radio Frequency (RF) Telemetry System For Sensors And Actuators
6,676,288	LEW-16056-5	9/14/2018	Design And Manufacturing Processes Of Long-Life Hollow Cathode Assemblies
6,684,695	LEW-17235-1	10/8/2022	Resistance Temperature Detector (RTD) Bridge Flow Sensor
6,684,940	LEW-17270-1	5/29/2022	Innovative Heat Pipe Systems Using New Working Fluids
6,696,774	LEW-16988-1	6/1/2021	Magnetohydrodynamic Power Extraction And Flow Conditioning In A Gas Turbine Inlet
6,696,792	LEW-17230-1	8/8/2022	Compact Plasma Accelerator For Micro-propulsion And Low Energy Materials Processing.
6,700,656	LEW-17301-1	9/17/2022	Shadowgraphic Method To Measure Contact Angles With Flow Visualization In A Sessile Drop On A Non-Transparent Substrate
6,702,300	LEW-17112-1	1/11/2022	Seal For Large Structural Movements
6,706,549	LEW-17170-1	4/12/2022	Common-Layered Architecture For Semiconductor Silicon Carbide (CLASSiC) Bulk Fabrication
6,727,618	LEW-17316-1	6/10/2022	Morrison Hybrid Rotor For A Bearingless Switched Reluctance Motor
6,729,174	LEW-16056-6	9/14/2018	Design And Manufacturing Processes Of Long-Life Hollow Cathode Assemblies
6,746,149	LEW-16682-1	6/1/2019	Rare Earth Optical Temperature Sensor
6,759,151	LEW-17275-1	5/22/2022	Low CTE X2 Phase Rare Earth Silicate-Based EBC/TBC's For Si-Based Ceramics
6,763,699	LEW-17300-1	2/6/2023	Method For Fabrication Of Improved Gas Sensors Using SiC Semiconductors
6,769,303	LEW-17170-2	4/21/2022	Multi-Functional Micro Electromechanical Silicon Carbide Accelerometer
6,770,208	LEW-17110-2	8/13/2022	Method For Forming MEMS-based Spinning Nozzle
6,783,592	LEW-17237-1	10/10/2022	Improved Alpha SiC Epitaxial Growth And Devices By Using Web Growth To Select Locations Of Screw Dislocations
6,784,276	LEW-17291-1	7/25/2022	Improved Processing For Polyimides Via Concentrated Solid Monomer Reactants Approach
6,794,213	LEW-17222-2	8/29/2022	Method Of Assembling A Silicon Carbide High Temperature Anemometer
6,809,450	LEW-17293-2	12/4/2023	Software For System For Controlling A Magnetically Levitated Rotor
6,827,551	LEW-16833-1	2/1/2020	Self-Tuning Impact Damper
6,828,367	LEW-17339-1	9/20/2022	Organic Modification Of A Layered Silicate By Co-Ion Exchange Of An Alkyl Amonium Ion And A Protonated Diamine

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6,829,920	LEW-16056-7	9/14/2018	Design And Manufacturing Processes Of Long-Life Hollow Cathode Assemblies
6,838,191	LEW-17357-1	5/20/2023	Blanch Resistant And Thermal Barrier NiAl Coating Systems For Advanced Copper Alloys
6,844,852	LEW-17389-1	3/31/2023	Microelectromechanical Systems (MEMS) Actuator Based Reconfigurable Printed Antennas
6,845,664	LEW-17256-1	10/3/2022	MEMS Direct Chip Attach (MEMS-DCA) Packaging Methodologies For Harsh Environments
6,852,170	LEW-17236-1	10/3/2022	Computer Mouse Cleaning Apparatus
6,855,433	LEW-17299-2	6/16/2024	Mechanically Resilient Polymeric Films Doped With A Lithium Compound
6,869,480	LEW-17157-1	7/17/2022	Method For Production Of Atomic Scale Step Height Reference Specimens With Atomically Flat Surfaces
6,881,820	LEW-17299-1	5/13/2022	Polyimide Rod-Coil Block Copolymers As Membrane Materials For Ion Conduction
6,886,327	LEW-17093-2	3/20/2022	NiAl -Based Approach For Rocket Combustion Chambers High Speed Electromechanical Shutter For Imaging Spectrographs
6,937,331	LEW-17175-1	1/30/2023	Compact Plasma Accelerator
6,960,888	LEW-17230-2	1/5/2024	Nickel-Base Superalloy Turbine Disk
6,974,805	LEW-17318-1	10/29/2022	Polyimides By Photochemical Cyclopolymerization
6,974,855	LEW-17133-3	4/5/2021	MEMS Closed Chamber Heat Engine And Electric Generator
6,978,611	LEW-17391	10/23/2003	Novel Substituted Cyclohexene Endcaps For Polymers With Thermal Oxidative Stability
6,979,721	LEW-17429-1	10/23/2023	Solvent-Free Low Melt Viscosity Imide Oligomers And Thermosetting Polyimide Composites
7,015,304	LEW-17618-1	7/23/2024	System For Controlling A Magnetically Levitated Rotor
7,023,118	LEW-17293-1	3/12/2023	Series Connected Buck Boost Regulator
7,042,199	LEW-17353-1	7/28/2023	Identification Of Cells With A Compact Microscope Imaging System With Intelligent Controls
7,042,639	LEW-17484-3	2/4/2025	Endwall Treatment And Method For Gas Turbines
7,074,006	LEW-17176-1	10/8/2022	Acoustic Seal
7,086,648	LEW-17182-1	8/22/2023	Optimization Of Training Sets For Neural-Net Processing Of Characteristic Patterns From Vibrating Solids
7,072,874	LEW-17238-1	4/1/2023	Carbon Materials Metal/Metal Oxide Nanoparticle Composite And Battery Anode Composed Of The Same
7,094,499	LEW-17309-1	6/10/2023	Operation Of A Cartesian Robotic System In A Compact Microscope Imaging System With Intelligent Controls
7,106,502	LEW-17484-2	2/4/2025	