

Greger Thornell

List of Publications by Year in descending order

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69
papers

978
citations

471509

17
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477307

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69
docs citations

69
times ranked

714
citing authors

#	ARTICLE	IF	CITATIONS
1	Invited Article: Electric solar wind sail: Toward test missions. <i>Review of Scientific Instruments</i> , 2010, 81, 111301.	1.3	112
2	Review on miniaturized paraffin phase change actuators, valves, and pumps. <i>Microfluidics and Nanofluidics</i> , 2014, 17, 53-71.	2.2	79
3	High Resolution 3D Microstructures Made by Localized Electrodeposition of Nickel. <i>Journal of the Electrochemical Society</i> , 2000, 147, 1810.	2.9	70
4	A large stroke, high force paraffin phase transition actuator. <i>Sensors and Actuators A: Physical</i> , 2002, 96, 189-195.	4.1	62
5	Fabrication of a paraffin actuator using hot embossing of polycarbonate. <i>Sensors and Actuators A: Physical</i> , 2003, 103, 307-316.	4.1	61
6	A polymeric paraffin actuated high-pressure micropump. <i>Sensors and Actuators A: Physical</i> , 2006, 127, 88-93.	4.1	46
7	Microprocessing at the fingertips. <i>Journal of Micromechanics and Microengineering</i> , 1998, 8, 251-262.	2.6	27
8	Evaluation of a microplasma source based on a stripline split-ring resonator. <i>Plasma Sources Science and Technology</i> , 2013, 22, 055017.	3.1	24
9	A thermally activated paraffin-based actuator for gas-flow control in a satellite electrical propulsion system. <i>Sensors and Actuators A: Physical</i> , 2003, 105, 237-246.	4.1	22
10	A Polymeric Paraffin Microactuator. <i>Journal of Microelectromechanical Systems</i> , 2008, 17, 1172-1177.	2.5	22
11	Design and fabrication of a gripping tool for micromanipulation. <i>Sensors and Actuators A: Physical</i> , 1996, 53, 428-433.	4.1	21
12	Anisotropy-independent through micromachining of quartz resonators by ion track etching. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 1997, 44, 829-838.	3.0	21
13	High-temperature zirconia microthruster with an integrated flow sensor. <i>Journal of Micromechanics and Microengineering</i> , 2013, 23, 055004.	2.6	21
14	A highly integratable silicon thermal gas flow sensor. <i>Journal of Micromechanics and Microengineering</i> , 2012, 22, 065015.	2.6	20
15	Acoustically enriching, large-depth aquatic sampler. <i>Lab on A Chip</i> , 2012, 12, 1619.	6.0	20
16	Micromachining by ion track lithography. <i>Sensors and Actuators A: Physical</i> , 1999, 73, 176-183.	4.1	19
17	Quartz micromachining by lithographic control of ion track etching. <i>Applied Physics Letters</i> , 1996, 69, 3435-3436.	3.3	18
18	A latchable high-pressure thermohydraulic valve actuator. <i>Sensors and Actuators A: Physical</i> , 2012, 188, 292-297.	4.1	17

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19	Thermomechanical properties and performance of ceramic resonators for wireless pressure reading at high temperatures. <i>Journal of Micromechanics and Microengineering</i> , 2015, 25, 095016.	2.6	16
20	The Highland Terrain Hopper (HOPTER): Concept and use cases of a new locomotion system for the exploration of low gravity Solar System bodies. <i>Acta Astronautica</i> , 2016, 121, 200-220.	3.2	16
21	Desktop microfabrication - initial experiments with a piezoceramic. <i>Journal of Micromechanics and Microengineering</i> , 1999, 9, 434-437.	2.6	15
22	Microplasma source for optogalvanic spectroscopy of nanogram samples. <i>Journal of Applied Physics</i> , 2013, 114, 033302.	2.5	15
23	Stripline split-ring resonator with integrated optogalvanic sample cell. <i>Laser Physics Letters</i> , 2014, 11, 045701.	1.4	13
24	Evaluation of Dielectric Properties of HTCC Alumina for Realization of Plasma Sources. <i>Journal of Electronic Materials</i> , 2015, 44, 3654-3660.	2.2	12
25	Endurance and failure of an alumina-based monopropellant microthruster with integrated heater, catalytic bed and temperature sensors. <i>Journal of Micromechanics and Microengineering</i> , 2017, 27, 055011.	2.6	12
26	On the integration of flexible circuit boards with hot embossed thermoplastic structures for actuator purposes. <i>Sensors and Actuators A: Physical</i> , 2006, 125, 534-547.	4.1	11
27	Radiation tolerance of a spin-dependent tunnelling magnetometer for space applications. <i>Measurement Science and Technology</i> , 2011, 22, 045204.	2.6	11
28	Manufacturing and characterization of a ceramic microcombustor with integrated oxygen storage and release element. <i>Journal of Micromechanics and Microengineering</i> , 2015, 25, 104006.	2.6	11
29	A high-temperature calorimetric flow sensor employing ion conduction in zirconia. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	11
30	Binary Mixtures of n-Alkanes for Tunable Thermohydraulic Microactuators. <i>Journal of Microelectromechanical Systems</i> , 2007, 16, 728-733.	2.5	10
31	Catalytic effect of platinum and silver in a hydrogen peroxide monopropellant ceramic microthruster. <i>Propulsion and Power Research</i> , 2020, 9, 216-224.	4.3	10
32	A thermal microactuator made by partial impregnation of polyimide with paraffin. <i>Journal of Micromechanics and Microengineering</i> , 2002, 12, 849-854.	2.6	9
33	Ga Implantation in a MgO-based Magnetic Tunnel Junction With $\text{Co}_{60}\text{Fe}_{20}\text{B}_{20}$ Layers. <i>IEEE Transactions on Magnetics</i> , 2011, 47, 151-155.	2.1	8
34	Towards Chip-Based Salinity Measurements for Small Submersibles and Biologgers. <i>International Journal of Oceanography</i> , 2013, 2013, 1-11.	0.2	8
35	Ceramic Pressure Sensor for High Temperatures – Investigation of the Effect of Metallization on Read Range. <i>IEEE Sensors Journal</i> , 2017, 17, 2411-2421.	4.7	8
36	A solder sealing method for paraffin-filled microcavities. <i>Journal of Micromechanics and Microengineering</i> , 2006, 16, 2369-2374.	2.6	7

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37	Surfaces with high solar reflectance and high thermal emittance on structured silicon for spacecraft thermal control. <i>Optical Materials</i> , 2008, 30, 1410-1421.	3.6	7
38	Instrumentation and vehicle platform of a miniaturized submersible for exploration of terrestrial and extraterrestrial aqueous environments. <i>Acta Astronautica</i> , 2012, 79, 203-211.	3.2	7
39	Design and Modeling of a Thermally Regulated Communications Module for Nanospacecraft. <i>Journal of Spacecraft and Rockets</i> , 2006, 43, 1377-1386.	1.9	6
40	Manufacturing miniature Langmuir probes by fusing platinum bond wires. <i>Journal of Micromechanics and Microengineering</i> , 2015, 25, 105012.	2.6	6
41	Heavy ion induced etch anisotropy in single crystalline quartz. , 0, , .		5
42	Effect of Resistive and Plasma Heating on the Specific Impulse of a Ceramic Cold Gas Thruster. <i>Journal of Microelectromechanical Systems</i> , 2019, 28, 235-244.	2.5	5
43	Pirani microgauge fabricated of high-temperature co-fired ceramics with integrated platinum wires. <i>Sensors and Actuators A: Physical</i> , 2019, 285, 8-16.	4.1	5
44	Seeing the invisible with schlieren imaging. <i>Physics Education</i> , 2011, 46, 294-297.	0.5	4
45	Investigation of a zirconia co-fired ceramic calorimetric microsensors for high-temperature flow measurements. <i>Journal of Micromechanics and Microengineering</i> , 2015, 25, 065014.	2.6	4
46	Manufacturing and characterization of a ceramic single-use microvalve. <i>Journal of Micromechanics and Microengineering</i> , 2016, 26, 095002.	2.6	4
47	Optogalvanic spectroscopy with microplasma sources – current status and development towards a lab on a chip. <i>Journal of Micromechanics and Microengineering</i> , 2016, 26, 104003.	2.6	4
48	A polymeric paraffin micropump with active valves for high-pressure microfluidics. , 0, , .		3
49	Analysis of Thermal Transients in an Asymmetric Silicon-Based Heat Dissipation Stage. <i>IEEE Transactions on Components and Packaging Technologies</i> , 2007, 30, 444-456.	1.3	3
50	A latchable high-pressure composite valve actuator combining paraffin and a low melting point alloy. , 2011, , .		3
51	Finite element analysis of the effect on employing thermal through vias and heat fingers to increase heat transfer to fluid in calorimetric flow sensors. <i>Sensors and Actuators A: Physical</i> , 2013, 201, 49-57.	4.1	3
52	Thermomechanical stability and integrability of an embedded ceramic antenna with an integrated sensor element for wireless reading in harsh environments. <i>Journal of Physics: Conference Series</i> , 2013, 476, 012055.	0.4	3
53	Compliance of a microstructured, soft sampling device for transcutaneous blood gas monitoring. <i>RSC Advances</i> , 2020, 10, 36386-36395.	3.6	3
54	Cut-independent deep structuring of quartz for frequency control applications. , 0, , .		2

#	ARTICLE	IF	CITATIONS
55	Deep micromachining of insulating materials by etching of laterally constrained distributions of ion tracks. , 0, , .		2
56	Structural Integrity of Flat Silicon Panels for Nanosatellites: Modeling and Testing. Journal of Spacecraft and Rockets, 2006, 43, 1319-1327.	1.9	2
57	Thermally regulated valve for minute flows. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 686-691.	2.1	2
58	A micromachined dual-axis beam steering actuator for use in a miniaturized optical space communication system. Journal of Micromechanics and Microengineering, 2010, 20, 105007.	2.6	2
59	A compact system to extract topography information from scenes viewed by a miniaturized submersible explorer. Sensors and Actuators A: Physical, 2012, 188, 401-410.	4.1	2
60	Investigation of exhausts from fabricated silicon micronozzles with rectangular and close to rotationally symmetric cross-sections. Journal of Micromechanics and Microengineering, 2013, 23, 105001.	2.6	2
61	Microfluidics integrable plasma source powered by a silicon through-substrate split-ring resonator. , 2013, , .		1
62	Operation Characteristics and Optical Emission Distribution of a Miniaturized Silicon Through-Substrate Split-Ring Resonator Microplasma Source. Journal of Microelectromechanical Systems, 2014, 23, 1340-1345.	2.5	1
63	Extreme-temperature lab on a chip for optogalvanic spectroscopy of ultra small samples - key components and a first integration attempt. Journal of Physics: Conference Series, 2016, 757, 012029.	0.4	1
64	Systematic variation of design aspects for a significant increase in thermal fracture resistance of alumina microthrusters. Journal of Micromechanics and Microengineering, 2021, 31, 085005.	2.6	1
65	Manufacturing cost and lead time calculation applied to highly miniaturized systems for space. , 2006, , .		0
66	Metallic High-Pressure Microfluidic Pump with Active Valves. , 2007, , .		0
67	A compact projection system enabling topographical measurements for a miniaturized submersible explorer. , 2011, , .		0
68	Enclosure-Induced Interference Effects in a Miniaturized Sidescan Sonar. IEEE Journal of Oceanic Engineering, 2012, 37, 236-243.	3.8	0
69	Experimental Studies of Sealing Mechanism of a Dismountable Microsystem-to-Macropart Fluidic Connector for High Pressure and a Wide Range of Temperature. Advances in Mechanical Engineering, 2010, 2, 712587.	1.6	0