

Rebecca L Peterson

List of Publications by Year in descending order

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80
papers

2,600
citations

331259

21
h-index

223531

46
g-index

80
all docs

80
docs citations

80
times ranked

3322
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of high temperature annealing on the atomic layer deposited HfO ₂ /Î²-Ga ₂ O ₃ (010) interface. Journal of Applied Physics, 2022, 131, .	1.1	10
2	Experimental and theoretical study of hole scattering in RF sputtered p-type Cu ₂ O thin films. Applied Physics Letters, 2022, 120, .	1.5	5
3	Extraction of SnO Subbandgap Defect Density by Numerical Modeling of p-Type TFTs. IEEE Transactions on Electron Devices, 2022, 69, 2436-2442.	1.6	5
4	Charge trapping and recovery in ALD HfO ₂ /Î²-Ga ₂ O ₃ (010) MOS capacitors. Semiconductor Science and Technology, 2021, 36, 04LT01.	1.0	5
5	Plasma-Enhanced Atomic Layer Deposition of p-Type Copper Oxide Semiconductors with Tunable Phase, Oxidation State, and Morphology. Journal of Physical Chemistry C, 2021, 125, 9383-9390.	1.5	15
6	Process and characterization of ohmic contacts for beta-phase gallium oxide. Journal of Materials Research, 2021, 36, 4771-4789.	1.2	24
7	Area-Selective Atomic Layer Deposition Patterned by Electrohydrodynamic Jet Printing for Additive Manufacturing of Functional Materials and Devices. ACS Nano, 2020, 14, 17262-17272.	7.3	33
8	Accelerated Aging Stability of Î²-Ga ₂ O ₃ â€“Titanium/Gold Ohmic Interfaces. ACS Applied Materials & Interfaces, 2020, 12, 46277-46287.	4.0	29
9	Highâ€“Performance Zinc Tin Oxide TFTs with Active Layers Deposited by Atomic Layer Deposition. Advanced Electronic Materials, 2020, 6, 2000195.	2.6	33
10	Causes of the Difference Between Hall Mobility and Field-Effect Mobility for p-Type RF Sputtered Cuâ„O Thin-Film Transistors. IEEE Transactions on Electron Devices, 2020, 67, 5557-5563.	1.6	17
11	(Invited) Monolithic Integration of Zinc Tin Oxide Electronics. ECS Meeting Abstracts, 2020, MA2020-01, 1328-1328.	0.0	0
12	Passivation of Thin Channel Zinc Tin Oxide TFTs Using Al ₂ O ₃ Deposited by O ₃ -Based Atomic Layer Deposition. IEEE Electron Device Letters, 2019, 40, 1120-1123.	2.2	14
13	Thin Films: Exploiting In Situ Redox and Diffusion of Molybdenum to Enable Thinâ€“Film Circuitry for Lowâ€“Cost Wireless Energy Harvesting (Adv. Funct. Mater. 5/2019). Advanced Functional Materials, 2019, 29, 1970029.	7.8	0
14	Ternary Alloy Rare-Earth Scandate as Dielectric for Î²-Ga ₂ O ₃ MOS Structures. IEEE Transactions on Electron Devices, 2019, 66, 2489-2495.	1.6	21
15	Annealing Induced Interfacial Evolution of Titanium/Gold Metallization on Unintentionally Doped Î²-Ga ₂ O ₃ . ECS Journal of Solid State Science and Technology, 2019, 8, Q3176-Q3179.	0.9	20
16	Observation of impurity band conduction and variable range hopping in heavily doped (010) Î²-Ga ₂ O ₃ . Semiconductor Science and Technology, 2019, 34, 03LT02.	1.0	23
17	Interfacial reactions of titanium/gold ohmic contacts with Sn-doped Î²-Ga ₂ O ₃ . APL Materials, 2019, 7, .	2.2	51
18	Wide bandgap oxides. APL Materials, 2019, 7, .	2.2	2

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19	Monolithic integration of high-voltage thin-film electronics on low-voltage integrated circuits using a solution process. <i>Nature Electronics</i> , 2019, 2, 540-548.	13.1	56
20	Exploiting In Situ Redox and Diffusion of Molybdenum to Enable Thin-Film Circuitry for Low-Cost Wireless Energy Harvesting. <i>Advanced Functional Materials</i> , 2019, 29, 1806002.	7.8	7
21	The effects of localized tail states on charge transport mechanisms in amorphous zinc tin oxide Schottky diodes. <i>Semiconductor Science and Technology</i> , 2017, 32, 12LT02.	1.0	16
22	The roles of rare-earth dopants in solution-processed ZnO-based transparent conductive oxides. <i>Journal of Applied Physics</i> , 2017, 122, 105301.	1.1	9
23	Effect of relative humidity and pre-annealing temperature on spin-coated zinc tin oxide films made via the metal-organic decomposition route. <i>Journal of Materials Chemistry C</i> , 2017, 5, 8071-8081.	2.7	18
24	Increased blocking voltage in solution processed ZTO HVTFTs through drain offset. , 2017, , .		0
25	Enhancing breakdown voltage in amorphous zinc tin oxide Schottky diode. , 2017, , .		1
26	<i>In Situ</i> Chemical Modification of Schottky Barrier in Solution-Processed Zinc Tin Oxide Diode. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 23801-23809.	4.0	44
27	Thermally stable yttrium-scandium oxide high-k dielectrics deposited by a solution process. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 115109.	1.3	21
28	Electromagnetic generator optimization for non-resonant energy harvester. , 2014, , .		4
29	Molybdenum as a contact material in zinc tin oxide thin film transistors. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	45
30	High Performance, Low Temperature Solution-Processed Barium and Strontium Doped Oxide Thin Film Transistors. <i>Chemistry of Materials</i> , 2014, 26, 1195-1203.	3.2	62
31	Fused-Silica Micro Birdbath Resonator Gyroscope (μ -BRG). <i>Journal of Microelectromechanical Systems</i> , 2014, 23, 66-77.	1.7	101
32	High Stroke and High Deflection Bulk-PZT Diaphragm and Cantilever Micro Actuators and Effect of Pre-Stress on Device Performance. <i>Journal of Microelectromechanical Systems</i> , 2014, 23, 438-451.	1.7	13
33	Long-term testing of a vibration harvesting system for the structural health monitoring of bridges. <i>Sensors and Actuators A: Physical</i> , 2014, 217, 139-150.	2.0	53
34	Air flow sensing using micro-wire-bonded hair-like hot-wire anemometry. <i>Journal of Micromechanics and Microengineering</i> , 2013, 23, 085017.	1.5	39
35	Piezoelectrically transduced high-Q silica micro resonators. , 2013, , .		24
36	High-Q fused silica birdbath and hemispherical 3-D resonators made by blow torch molding. , 2013, , .		40

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37	Iodine-treated starch as easy-to-use, biodegradable material with controllable swelling and stiffening properties. , 2013, , .		2
38	Technology for fabricating dense 3-D microstructure arrays for biomimetic hair-like sensors. , 2013, , .		11
39	Drie of fused silica. , 2013, , .		12
40	A 3-DOF piezoelectric micro vibratory stage based on bulk-PZT/silicon crab-leg suspensions. , 2013, , .		16
41	High sensitivity, high density micro-hydraulic force sensor array utilizing stereo-lithography fabrication technique. , 2013, , .		6
42	High-speed electrostatic micro-hydraulics for sensing and actuation. , 2013, , .		6
43	Highly-reliable electrostatic actuator using filleted electrode made with photoresist solvent reflow. , 2013, , .		3
44	Wafer-Level Integration of High-Quality Bulk Piezoelectric Ceramics on Silicon. IEEE Transactions on Electron Devices, 2013, 60, 2022-2030.	1.6	39
45	Post-CMOS FinFET Integration of Bismuth Telluride and Antimony Telluride Thin-Film-Based Thermoelectric Devices on Si Substrate. IEEE Electron Device Letters, 2013, 34, 1334-1336.	2.2	11
46	High-speed air microjet arrays produced using acoustic streaming for micro propulsion. , 2013, , .		3
47	Theoretical and Experimental Analysis of Active Valve Pumping for High Flow Rate Applications. , 2013, , .		0
48	3-Dimensional Blow Torch-Molding of Fused Silica Microstructures. Journal of Microelectromechanical Systems, 2013, 22, 1276-1284.	1.7	60
49	Valve-only pumping in mechanical gas micropumps. , 2013, , .		5
50	A high-Q birdbath resonator gyroscope (BRG). , 2013, , .		28
51	A 6-DOF piezoelectric micro vibratory stage based on multi-axis distributed-electrode excitation of PZT/Si unimorph T-beams. , 2013, , .		9
52	A 2-D directional air flow sensor array made using stereolithography and MEMS micro-hydraulic structures. , 2013, , .		7
53	Fabrication of multi-layer vertically stacked fused silica microsystems. , 2013, , .		12
54	Hair-based sensors for micro-autonomous systems. Proceedings of SPIE, 2012, , .	0.8	8

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55	Charge transport in solution-processed zinc tin oxide thin film transistors. Journal of Materials Research, 2012, 27, 2286-2292.	1.2	22
56	High aspect ratio deep silicon etching. , 2012, , .		35
57	A scalable, modular, multi-stage, peristaltic, electrostatic gas micro-pump. , 2012, , .		10
58	A Multiphysics Reduced Order Model of Valve Pumping in a 4-Stage Vacuum Micropump. , 2012, , .		1
59	Harvesting traffic-induced vibrations for structural health monitoring of bridges. Journal of Micromechanics and Microengineering, 2011, 21, 104005.	1.5	110
60	Multistage Planar Thermoelectric Microcoolers. Journal of Microelectromechanical Systems, 2011, 20, 1201-1210.	1.7	23
61	Parylene microprobes with engineered stiffness and shape for improved insertion. , 2011, , .		15
62	Thinned-PZT on SOI process and design optimization for piezoelectric inertial energy harvesting. , 2011, , .		60
63	Harvesting traffic-induced bridge vibrations. , 2011, , .		15
64	A self-supplied inertial piezoelectric energy harvester with power-management IC. , 2011, , .		37
65	Low-temperature, high-performance solution-processed metal oxide thin-film transistors formed by a "sol-gel" on chip™ process. Nature Materials, 2011, 10, 45-50.	13.3	935
66	Micro-hydraulic structure for high performance bio-mimetic air flow sensor arrays. , 2011, , .		28
67	Energy harvesting of radio frequency and vibration energy to enable wireless sensor monitoring of civil infrastructure. , 2011, , .		12
68	A two-tiered self-powered wireless monitoring system architecture for bridge health management. Proceedings of SPIE, 2010, , .	0.8	4
69	A CMOS-compatible piezoelectric vibration energy scavenger based on the integration of bulk PZT films on silicon. , 2010, , .		32
70	Low-Temperature Sintering of In-Plane Self-Assembled ZnO Nanorods for Solution-Processed High-Performance Thin Film Transistors. Journal of Physical Chemistry C, 2007, 111, 18831-18835.	1.5	55
71	Reduced buckling in one dimension versus two dimensions of a compressively strained film on a compliant substrate. Applied Physics Letters, 2006, 88, 201913.	1.5	18
72	Comment on "Fabrication of strained silicon on insulator by strain transfer process" [Appl. Phys. Lett. 87, 051921 (2005)]. Applied Physics Letters, 2006, 88, 146101.	1.5	1

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73	Maximizing uniaxial tensile strain in large-area silicon-on-insulator islands on compliant substrates. Journal of Applied Physics, 2006, 100, 023537.	1.1	11
74	Ultrathin Strained-SOI by Stress Balance on Compliant Substrates and FET Performance. IEEE Transactions on Electron Devices, 2005, 52, 2207-2214.	1.6	20
75	Tunable uniaxial vs biaxial in-plane strain using compliant substrates. Applied Physics Letters, 2005, 87, 061922.	1.5	19
76	Island Scaling Effects on Photoluminescence of Strained SiGe/Si (100). Materials Research Society Symposia Proceedings, 2004, 809, B8.4.1.	0.1	1
77	Relaxed SiGe Layers with High Ge Content by Compliant Substrates. Materials Research Society Symposia Proceedings, 2003, 768, 171.	0.1	1
78	Relaxed SiGe Layers with High Ge Content by Compliant Substrates. Materials Research Society Symposia Proceedings, 2003, 765, 1.	0.1	1
79	A CPW T-resonator technique for electrical characterization of microwave substrates. IEEE Microwave and Wireless Components Letters, 2002, 12, 90-92.	2.0	35
80	A CPW T-Resonator Technique for Electrical Characterization of Microwave Substrates. , 2001, , .		1