JÃ¡nos Mizsei

List of Publications by Year
in descending order

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74	1,350	489802	406436
papers	citations	18	35
		h-index	g-index

74	74	74	1783
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Gas Sensors and Semiconductor Nanotechnology. Nanomaterials, 2022, 12, 1322.	1.9	3
2	Comparative multiphysics simulation of VO2 based lateral devices. , 2021, , .		0
3	Application of Vanadium Dioxide for Thermal Sensing. , 2021, , .		8
4	Magnetic Nanoparticles with Dual Surface Functionsâ€"Efficient Carriers for Metalloporphyrin-Catalyzed Drug Metabolite Synthesis in Batch and Continuous-Flow Reactors. Nanomaterials, 2020, 10, 2329.	1.9	6
5	Electric and Photocatalytic Properties of Graphene Oxide Depending on the Degree of Its Reduction. Nanomaterials, 2020, 10, 2313.	1.9	5
6	Electro-Thermal Simulation of Vertical VO2 Thermal-Electronic Circuit Elements. Energies, 2020, 13, 3447.	1.6	5
7	Study of Dynamic Simulation for Thermal-Electronic Logic Circuits. , 2020, , .		0
8	Microelectronics, Nanoelectronics: step behind the red brick wall using the thermal domain. Materials Today: Proceedings, 2019, 7, 888-893.	0.9	1
9	Neuromorphic thermal-electric circuits based on phase-change VO2 thin-film memristor elements. Journal of Applied Physics, 2019, 125, .	1.1	44
10	Photocatalytic properties of TiO2@polymer and TiO2@carbon aerogel composites prepared by atomic layer deposition. Carbon, 2019, 147, 476-482.	5.4	51
11	Electro-Thermal Investigation of SMT Resistors for Thermal-Electrical Logic Circuits by Simulation. , 2019, , .		3
12	Thermal electronic logic circuit as neuromorphic element. , 2018, , .		0
13	Thermoelectrical modelling and simulation of devices based on VO2. Microelectronics Reliability, 2017, 79, 387-394.	0.9	9
14	Active thermal-electronic devices based on heat-sensitive metal-insulator-transition resistor elements. Sensors and Actuators A: Physical, 2017, 267, 14-20.	2.0	5
15	Forty Years of Adventure with Semiconductor Gas Sensors. Procedia Engineering, 2016, 168, 221-226.	1.2	12
16	Thermal-electronic Integrated Circuits Using Thermally Sensitive VO 2 MIT Material. Procedia Engineering, 2016, 168, 1070-1073.	1.2	5
17	Thermal-electronic device and integrated circuit. , 2016, , .		1
18	Modelling of the thermoelectrical performance of devices based on VO<inf>2</inf>. , 2016, , .		0

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19	Influence of the photoactive layer thickness on the device parameters and their temperature dependence in thin crystalline silicon photovoltaic devices. , 2016, , .		2
20	The Phonsistor â€“ A Novel VO2 Based Nanoscale Thermal-electronic Device and Its Application in Thermal-electronic Logic Circuits (TELC). Materials Today: Proceedings, 2015, 2, 4272-4279.	0.9	9
21	Thermal-electronic circuits: Basics, simulations, experiments. , 2015, , .		2
22	Thermal-electronic devices and thermal-electronic logic circuits (TELC). , 2015, , .		2
23	Thermal-electronic logic circuits: Scaling down. Microelectronics Journal, 2015, 46, 1175-1178.	1.1	8
24	Scaling of thermal-electronic logic circuits. , 2014, , .		0
25	Characterization of 4H-SiC surfaces by non-destructive techniques based on capacitance voltage measurements. Applied Surface Science, 2014, 301, 19-23.	3.1	1
26	Semitransparent monocrystalline solar cells manufactured by laser cutting and anisotropic etching. Microsystem Technologies, 2013, 19, 837-844.	1.2	1
27	Thermal-electronic integrated logic. , 2013, , .		9
28	Experimental study of surface distortions in silicon carbide caused by diffusion welding. , 2012, , .		0
29	Electrical characterization of surface and interface potentials on SiC. Applied Surface Science, 2012, 258, 8343-8348.	3.1	3
30	Gas sensing selectivity of hexagonal and monoclinic WO3 to H2S. Solid State Sciences, 2010, 12, 1857-1860.	1.5	100
31	A simple humidity sensor with thin film porous alumina and integrated heating. Procedia Engineering, 2010, 5, 701-704.	1.2	20
32	Effect of deuterium on passivation of Si surfaces. Applied Surface Science, 2010, 256, 5765-5770.	3.1	11
33	Humidity sensor structures with thin film porous alumina for on-chip integration. Thin Solid Films, 2009, 517, 6198-6201.	0.8	43
34	Surface electronic properties of sulfur-treated GaAs determined by surface photovoltage measurement and its computer simulation. Surface Science, 2009, 603, 498-502.	0.8	18
35	Stability and Controlled Composition of Hexagonal WO₃. Chemistry of Materials, 2008, 20, 4116-4125.	3.2	192
36	Controlling the Composition of Nanosize Hexagonal WO₃ for Gas Sensing. Materials Science Forum, 2008, 589, 161-166.	0.3	18

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37	MEMS Testing by Vibrating Capacitor. , 2007, , .		1
38	Gas sensor applications of porous Si layers. Thin Solid Films, 2007, 515, 8310-8315.	0.8	57
39	Contact free potential mapping by vibrating capacitor. International Biennial Baltic Electronics Conference, 2006, , .	0.0	0
40	Silicon surface passivation by static charge. Applied Surface Science, 2006, 252, 7691-7699.	3.1	14
41	Vibrating capacitor method in the development of semiconductor gas sensors. Thin Solid Films, 2005, 490, 17-21.	0.8	12
42	Experimental studies of O2â€“SnO2 surface interaction using powder, thick films and monocrystalline thin films. Thin Solid Films, 2005, 490, 48-53.	0.8	24
43	Vibrating capacitor mapped chemical picture classification by artificial neural network. Thin Solid Films, 2005, 490, 22-27.	0.8	0
44	Investigation of Fermi-level pinning at silicon/porous-silicon interface by vibrating capacitor and surface photovoltage measurements. Applied Surface Science, 2004, 235, 376-388.	3.1	18
45	Chemical imaging by direct methods. Thin Solid Films, 2003, 436, 25-33.	0.8	9
46	Chemical images by artificial olfactory epithelia. Sensors and Actuators B: Chemical, 2002, 83, 164-168.	4.0	12
47	Ultra-thin insulator covered silicon: potential barriers and tunnel currents. Solid-State Electronics, 2002, 46, 235-241.	0.8	14
48	Fermi-level pinning and passivation on the oxide-covered and bare silicon surfaces and interfaces. Vacuum, 2002, 67, 59-67.	1.6	37
49	Structural transformations of ultra-thin sputtered Pd activator layers on glass and SnO2 surfaces. Thin Solid Films, 2001, 391, 209-215.	0.8	19
50	In situ AFM, XRD and Resistivity Studies of the Agglomeration of Sputtered Silver Nanolayers. Journal of Nanoparticle Research, 2001, 3, 271-278.	0.8	33
51	Chemical Images by an Artificial Olfactory Bulb. , 2001, , 798-801.		0
52	Determination of SiO2â€“Si interface trap level density (Dit) by vibrating capacitor method. Solid-State Electronics, 2000, 44, 1825-1831.	0.8	14
53	Surface potential mapping: comparison of the vibrating capacitor and the SPV method. Solid-State Electronics, 2000, 44, 509-513.	0.8	15
54	Examination of the CO/Pt/Cu layer structure with Kelvin probe and XPS analysis. Sensors and Actuators B: Chemical, 2000, 68, 240-243.	4.0	6

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55	Nanocatalyst sensitizers by agglomeration of nanofilms. Sensors and Actuators B: Chemical, 2000, 65, 195-198.	4.0	14
56	Structural studies of sputtered noble metal catalysts on oxide surfaces. Sensors and Actuators B: Chemical, 1998, 47, 139-144.	4.0	34
57	Olfactory images by scanning Kelvin method. Sensors and Actuators B: Chemical, 1998, 48, 300-304.	4.0	10
58	AFM studies of ultra-thin metal deposits on sputtered tin-dioxide surfaces. Physica Scripta, 1997, T69, 233-236.	1.2	3
59	H2-induced surface and interface potentials on Pd-activated SnO2 sensor films. Sensors and Actuators B: Chemical, 1995, 28, 129-133.	4.0	30
60	How can sensitive and selective semiconductor gas sensors be made?. Sensors and Actuators B: Chemical, 1995, 23, 173-176.	4.0	146
61	Response pattern of SnO2 sensor system for smoke of different origins. Sensors and Actuators B: Chemical, 1994, 18, 264-267.	4.0	18
62	Reply to â€œComments on â€˜Surface potential transients of ultrathin SiO2î—¸Si structuresâ€™â€• Solid-State Electronics, 1993, 36, 117.	0.8	0
63	Activating technology of SnO2 layers by metal particles from ultrathin metal films. Sensors and Actuators B: Chemical, 1993, 16, 328-333.	4.0	55
64	Air pollution monitoring with a semiconductor gas sensor array system. Sensors and Actuators B: Chemical, 1992, 6, 223-227.	4.0	14
65	Surface potential transients of ultrathin SiO2î—¸Si structures. Solid-State Electronics, 1991, 34, 951-957.	0.8	9
66	Simultaneous response of work function and resistivity of some SnO2-based samples to H2 and H2S. Sensors and Actuators B: Chemical, 1991, 4, 163-168.	4.0	45
67	H2S monitoring as an air pollutant with silver-doped SnO2 thin-film sensors. Sensors and Actuators B: Chemical, 1991, 5, 21-25.	4.0	40
68	Semiconducting gas sensor incorporating a sparking decomposer. Sensors and Actuators B: Chemical, 1990, 2, 199-203.	4.0	10
69	Surface work function transients of tunnel SIO2-SI structures. , 1988, , 294-301.		2
70	Resistivity and work function measurements on Pd-doped SnO2 sensor surface. Sensors and Actuators, 1983, 4, 397-402.	1.8	37
71	In situ STM and AFM characterization of Pd nanoparticle activated SnO/sub 2/ sensor surface. , 0, , .		1
72	Vibrating capacitor: applications in the research of semiconductor gas sensors. , 0, , .		0

#	ARTICLE	IF	CITATIONS
73	Investigation of Additional States in the Silicon Carbide Surface after Diffusion Welding. Materials Science Forum, 0, 717-720, 275-278.	0.3	0
74	Study of Surface Defects in 4H-SiC Schottky Diodes Using a Scanning Kelvin Probe. Materials Science Forum, 0, 740-742, 677-680.	0.3	0