BartÅ‚omiej S Witkowski

List of Publications by Year
in descending order

137 papers	2,063 citations	279487 23 h-index	344852 36 g-index
139 all docs	139 docs citations	139 times ranked	2763 citing authors

#	Article	IF	Citations
1	The thermo-optical and optical properties of thin ZnO and AZO films produced using the atomic layer deposition technology. Journal of Alloys and Compounds, 2022, 900, 163313.	2.8	9
2	Impact of blocking layer on DSSC performance based on new dye -indolo[3,2,1-jk]carbazole derivative and N719. Dyes and Pigments, 2022, 200, 110166.	2.0	10
3	Catalytic Removal of NOx on Ceramic Foam-Supported ZnO and TiO2 Nanorods Ornamented with W and V Oxides. Energies, 2022, 15, 1798.	1.6	4
4	Growth and characterization of Ti-based films obtained from two selected precursors: H2O, TiCl4, Ti(N(CH3)2)4 or Al2(CH3)6 by the ALD method. Materials Science in Semiconductor Processing, 2022, 148, 106792.	1.9	2
5	Finite-difference time-domain simulation of cathodoluminescence patterns of ZnO hexagonal microrods. Nano Express, 2021, 2, 014003.	1.2	1
6	Impact of GaAs(100) surface preparation on EQE of AZO/Al₂O₃/p-GaAs photovoltaic structures. Beilstein Journal of Nanotechnology, 2021, 12, 578-592.	1.5	0
7	Schottky contacts to ZnO layers grown by Atomic Layer Deposition: effects of H2O2 functionalization and transport mechanisms. Applied Surface Science, 2021, 552, 149067.	3.1	3
8	9.1% efficient zinc oxide/silicon solar cells on a 50 Î¼m thick Si absorber. Beilstein Journal of Nanotechnology, 2021, 12, 766-774.	1.5	3
9	CdTe-based crystals with Mg, Se, or Mn as materials for X and gamma ray detectors: Selected physical properties. Progress in Crystal Growth and Characterization of Materials, 2021, 67, 100543.	1.8	10
10	Biodegradable Zinc Oxide Nanoparticles Doped with Iron as Carriers of Exogenous Iron in the Living Organism. Pharmaceuticals, 2021, 14, 859.	1.7	4
11	Probing structure of ytterbium stabilized Pr-doped zirconia obtained by microwave hydrothermal method. Ceramics International, 2021, 47, 26748-26757.	2.3	0
12	Application Properties of ZnO and AZO Thin Films Obtained by the ALD Method. Energies, 2021, 14, 6271.	1.6	16
13	Titanium Nitride as a Plasmonic Material from Near-Ultraviolet to Very-Long-Wavelength Infrared Range. Materials, 2021, 14, 7095.	1.3	17
14	Ultra-fast growth of copper oxide (II) thin films using hydrothermal method. Materials Science in Semiconductor Processing, 2020, 120, 105279.	1.9	9
15	Optically detected magnetic resonance in CdSe/CdMnS nanoplatelets. Nanoscale, 2020, 12, 21932-21939.	2.8	10
16	The effect of iron content on properties of ZnO nanoparticles prepared by microwave hydrothermal method. Optical Materials, 2020, 109, 110089.	1.7	20
17	Titanium Dioxide Thin Films Obtained by Atomic Layer Deposition Promotes Osteoblastsâ€™ Viability and Differentiation Potential While Inhibiting Osteoclast Activityâ€”Potential Application for Osteoporotic Bone Regeneration. Materials, 2020, 13, 4817.	1.3	16
18	Zirconium Oxide Thin Films Obtained by Atomic Layer Deposition Technology Abolish the Anti-Osteogenic Effect Resulting from miR-21 Inhibition in the Pre-Osteoblastic MC3T3 Cell Line . International Journal of Nanomedicine, 2020, Volume 15, 1595-1610.	3.3	23

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19	Tribological study of hafnium dioxide and aluminium oxide films grown by atomic layer deposition on glass substrate. Thin Solid Films, 2020, 709, 138191.	0.8	7
20	Electric field distribution around cadmium and tellurium inclusions within CdTe-based compounds. Journal of Crystal Growth, 2020, 533, 125486.	0.7	6
21	New generation of oxide-based nanoparticles for the applications in early cancer detection and diagnostics. Nanotechnology Reviews, 2020, 9, 274-302.	2.6	16
22	Transfer of orally administered ZnO:Eu nanoparticles through the bloodâ€“testis barrier: the effect on kinetic sperm parameters and apoptosis in mice testes. Nanotechnology, 2019, 30, 455101.	1.3	15
23	Shape control over microwave hydrothermally grown Y2O3:Eu by europium concentration adjustment. Journal of Rare Earths, 2019, 37, 1206-1212.	2.5	9
24	HfO2:Eu nanoparticles excited by X-rays and UV-visible radiation used in biological imaging. Journal of Rare Earths, 2019, 37, 1176-1182.	2.5	11
25	Growth and optical properties of ZnO/Zn_{1â^'x}Mg_xO quantum wells on ZnO microrods. Nanoscale, 2019, 11, 2275-2281.	2.8	8
26	Preliminary Studies on Biodegradable Zinc Oxide Nanoparticles Doped with Fe as a Potential Form of Iron Delivery to the Living Organism. Nanoscale Research Letters, 2019, 14, 373.	3.1	11
27	Structural and Electrical Parameters of ZnO Thin Films Grown by ALD with either Water or Ozone as Oxygen Precursors. Crystals, 2019, 9, 554.	1.0	13
28	Nonlinear optical response of ZnO/HfO2 core/shell nanorod arrays under continuous wave laser irradiation. Journal of Materials Science: Materials in Electronics, 2019, 30, 797-805.	1.1	2
29	Plasmon-enhanced absorption in heterojunction n-ZnO nanorods/p-Si solar cells. , 2019, , .		1
30	Investigation of Cd 1â^'x Mg x Te as possible materials for X and gamma ray detectors. Journal of Crystal Growth, 2018, 491, 73-76.	0.7	8
31	Photoluminescence investigation of the carrier recombination processes in N-doped and undoped ZnO ALD films grown at low temperature. Journal of Luminescence, 2018, 198, 68-76.	1.5	13
32	ZnO/GaAs heterojunction solar cells fabricated by the ALD method. Optik, 2018, 157, 743-749.	1.4	14
33	Tuning the luminescence of ZnO:Eu nanoparticles for applications in biology and medicine. Optical Materials, 2018, 80, 77-86.	1.7	17
34	Ultra-fast epitaxial growth of ZnO nano/microrods on a GaN substrate, using the microwave-assisted hydrothermal method. Materials Chemistry and Physics, 2018, 205, 16-22.	2.0	14
35	High performance and low temperature coal mine gas sensor activated by UV-irradiation. Scientific Reports, 2018, 8, 16298.	1.6	10
36	Multimodal non-gadolinium oxide nanoparticles for MRI and fluorescence labelling. , 2018, , .		2

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37	Applications of ZnO Nanorods and Nanowires - A Review. Acta Physica Polonica A, 2018, 134, 1226-1246.	0.2	14
38	Modified PV structures with a nanostructured top electrode. , 2018, , .		0
39	Novel nanomaterials for applications in cancer imaging. , 2018, , .		0
40	Biodegradable, fluorescent oxide nanocrystals for application in biology and medicine. , 2018, , .		0
41	High-k oxides by atomic layer depositionâ€"Applications in biology and medicine. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	0.9	14
42	Asymmetric ZnO/ZnMgO double quantum well structures grown on m-plane ZnO substrates by MBE. Journal of Luminescence, 2017, 186, 262-267.	1.5	10
43	Deep traps in the ZnO nanorods/Si solar cells. Journal of Alloys and Compounds, 2017, 708, 247-254.	2.8	15
44	Oxide-based materials by atomic layer deposition. Proceedings of SPIE, 2017, , .	0.8	0
45	Terbium content affects the luminescence properties of ZrO 2 :Tb nanoparticles for mammary cancer imaging in mice. Optical Materials, 2017, 74, 16-26.	1.7	16
46	Abrasion resistance of ZnO and ZnO:Al films on glass substrates by atomic layer deposition. Surface and Coatings Technology, 2017, 319, 164-169.	2.2	12
47	Structure-property relationships in ZnO:Al-hydroquinone films grown on flexible substrates by atomic and molecular layer deposition. Materials and Design, 2017, 119, 297-302.	3.3	12
48	Biodegradation of the ZnO:Eu nanoparticles in the tissues of adult mouse after alimentary application. Nanomedicine: Nanotechnology, Biology, and Medicine, 2017, 13, 843-852.	1.7	34
49	Abundant Acceptor Emission from Nitrogen-Doped ZnO Films Prepared by Atomic Layer Deposition under Oxygen-Rich Conditions. ACS Applied Materials & Interfaces, 2017, 9, 26143-26150.	4.0	32
50	Photoresistor based on ZnO nanorods grown on a p-type silicon substrate. Opto-electronics Review, 2017, 25, 15-18.	2.4	12
51	ZnO/Si heterojunction solar cell fabricated by atomic layer deposition and hydrothermal methods. Solar Energy, 2017, 155, 1282-1288.	2.9	55
52	Atomic layer deposited ZnO films implanted with Yb: The influence of Yb location on optical and electrical properties. Thin Solid Films, 2017, 643, 7-15.	0.8	16
53	Optical properties of ZnO microrods grown by a hydrothermal method â€“ a cathodoluminescence study. Optical Materials Express, 2016, 6, 3741.	1.6	7
54	Si/ZnO nanorods with Ag nanoparticles/AZO heterostructures in PV applications. Bulletin of the Polish Academy of Sciences: Technical Sciences, 2016, 64, 529-533.	0.8	0

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55	Fe dopant in ZnO: 2+ versus 3+ valency and ion-carrier <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>s</mml:mi><mml:mo>,</mml:mo><mml:mi>p</mml:mi><mml:m exchange interaction. Physical Review B, 2016, 94, .		
56	Imaging methods provide crucial understanding of the uptake and distribution processes of biodegradable ZnO doped Eu3+nanoparticles in living organism.. , 2016, , .		0
57	The effect of annealing on properties of europium doped ZnO nanopowders obtained by a microwave hydrothermal method. Optical Materials, 2016, 59, 103-106.	1.7	11
58	Optical properties of ZnO doped with Cobalt ions. Optical Materials, 2016, 59, 15-19.	1.7	7
59	Y2O3:Eu nanocrystals as biomarkers prepared by a microwave hydrothermal method. Optical Materials, 2016, 59, 157-164.	1.7	20
60	Basic Blue 41 removal by microwave hydrothermal reactor reduced graphene oxide. Desalination and Water Treatment, 2016, 57, 27269-27278.	1.0	14
61	Reduction of Tb4+ ions in luminescent Y2O3:Tb nanorods prepared by microwave hydrothermal method. Journal of Rare Earths, 2016, 34, 774-781.	2.5	37
62	XRD and RBS studies of quasi-amorphous zinc oxide layers produced by Atomic Layer Deposition. Thin Solid Films, 2016, 612, 337-341.	0.8	4
63	Atomic layer deposition of ZnO:Al on PAA substrates. Journal of Physics: Conference Series, 2016, 764, 012004.	0.3	4
64	Luminescence enhancement in nanocrystalline Eu2O3 nanorods â€“ Microwave hydrothermal crystallization and thermal degradation of cubic phase. Optical Materials, 2016, 59, 76-82.	1.7	11
65	Influence of ZnO:Al, MoO3 and PEDOT:PSS on efficiency in standard and inverted polymer solar cells based on polyazomethine and poly(3-hexylthiophene). Electrochimica Acta, 2016, 191, 784-794.	2.6	32
66	Luminescent properties of ZrO2:Tb nanoparticles for applications in neuroscience. Optical Materials, 2016, 59, 96-102.	1.7	23
67	Properties of silicon nitride thin overlays deposited on optical fibers â€” Effect of fiber suspension in radio frequency plasma-enhanced chemical vapor deposition reactor. Thin Solid Films, 2016, 603, 8-13.	0.8	4
68	Improved efficiency of n-ZnO/p-Si based photovoltaic cells by band offset engineering. Solar Energy Materials and Solar Cells, 2016, 147, 164-170.	3.0	64
69	On the size dependence and spatial range for the plasmon effect in photovoltaic efficiency enhancement. Solar Energy Materials and Solar Cells, 2016, 147, 1-16.	3.0	35
70	The Effect of Synthesis Pressure on Properties of Eu-Doped ZnO Nanopowders Prepared by Microwave Hydrothermal Method. Acta Physica Polonica A, 2016, 130, 1205-1208.	0.2	7
71	Optical Characterization of ZnO Nanorods Grown by the Ultra-Fast and Low Temperature Hydrothermal Process. Acta Physica Polonica A, 2016, 130, 1199-1201.	0.2	0
72	Influence of Annealing on Optical Properties of ZnO Nanorods Obtained by the Microwave-Assisted Hydrothermal Process. Acta Physica Polonica A, 2016, 130, 1202-1204.	0.2	0

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73	Low-Temperature Cathodoluminescence Investigations of High-Quality Zinc Oxide Nanorods. Microscopy and Microanalysis, 2015, 21, 564-569.	0.2	2
74	Paramagnetism of cobalt-doped ZnO nanoparticles obtained by microwave solvothermal synthesis. Beilstein Journal of Nanotechnology, 2015, 6, 1957-1969.	1.5	44
75	Si/ZnO nanorods/Ag/AZO structures as promising photovoltaic plasmonic cells. Journal of Applied Physics, 2015, 117, .	1.1	17
76	Antimicrobial coatings grown by the atomic layer deposition technique. , 2015, , .		1
77	Characterization of dielectric layers grown at low temperature by atomic layer deposition. Thin Solid Films, 2015, 577, 97-102.	0.8	35
78	New efficient solar cell structures based on zinc oxide nanorods. Solar Energy Materials and Solar Cells, 2015, 143, 99-104.	3.0	106
79	Hybrid disordered blends formed from fullerene porous layers and zinc oxide grown by atomic layer deposition. Journal of Materials Science, 2015, 50, 4132-4141.	1.7	1
80	Control of the crystal structure and electrical transport in undoped PbTe films grown by pulsed laser deposition. Journal of Crystal Growth, 2015, 432, 19-23.	0.7	4
81	Photovoltaic properties of ZnO nanorods/p-type Si heterojunction structures. Beilstein Journal of Nanotechnology, 2014, 5, 173-179.	1.5	17
82	Properties of diamondâ€like carbon nanoâ€coating deposited with RF PECVD method on UVâ€induced longâ€period fibre gratings. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 2307-2312.	0.8	4
83	Electrical and mechanical stability of aluminum-doped ZnO films grown on flexible substrates by atomic layer deposition. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2014, 186, 15-20.	1.7	22
84	Atomic layer deposition of Zn1â^'x Mg x O:Al transparent conducting films. Journal of Materials Science, 2014, 49, 1512-1518.	1.7	12
85	UV detector based on zinc oxide nanorods obtained by the hydrothermal method. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 1447-1451.	0.8	16
86	Electrical and photovoltaic properties of ZnO/Si heterostructures with ZnO films grown by atomic layer deposition. Thin Solid Films, 2014, 563, 28-31.	0.8	12
87	Dominant shallow donors in zinc oxide layers obtained by low-temperature atomic layer deposition: Electrical and optical investigations. Acta Materialia, 2014, 65, 69-75.	3.8	20
88	Ultra-fast growth of the monocrystalline zinc oxide nanorods from the aqueous solution. International Journal of Nanotechnology, 2014, 11, 758.	0.1	22
89	Influence of CVD process duration on morphology, structure and sensing properties of carbonaceous-palladium films. Journal of Physics: Conference Series, 2014, 564, 012003.	0.3	0
90	Modification of Emission Properties of ZnO Layers due to Plasmonic Near-Field Coupling to Ag Nanoislands. Plasmonics, 2013, 8, 913-919.	1.8	7

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91	Homogeneous and heterogeneous magnetism in (Zn,Co)O: From a random antiferromagnet to a dipolar superferromagnet by changing the growth temperature. Physical Review B, 2013, 88, .	1.1	43
92	Kinetics of anatase phase formation in TiO2 films during atomic layer deposition and post-deposition annealing. CrystEngComm, 2013, 15, 9949.	1.3	27
93	Chlorination of Carbon Nanotubes Obtained on the Different Metal Catalysts. Journal of Nanomaterials, 2013, 2013, 1-9.	1.5	17
94	RBS/Channeling Analysis of Zinc Oxide Films Grown at Low Temperature by Atomic Layer Deposition. Acta Physica Polonica A, 2013, 123, 899-903.	0.2	4
95	Capability for Fine Tuning of the Refractive Index Sensing Properties of Long-Period Gratings by Atomic Layer Deposited Al2O3 Overlays. Sensors, 2013, 13, 16372-16383.	2.1	46
96	Characterization of n-ZnO/p-GaN Heterojunction for Optoelectronic Applications. Acta Physica Polonica A, 2013, 124, 869-872.	0.2	5
97	Tuning properties of long-period gratings by atomic layer deposited zinc oxide nano-coating. Proceedings of SPIE, 2013, , .	0.8	2
98	Thin Films of Highâ€‹i>k</i> Oxides and ZnO for Transparent Electronic Devices. Chemical Vapor Deposition, 2013, 19, 213-220.	1.4	18
99	Tem and CL Investigations of Pd Nanograins Included in Carbonaceous Film. Solid State Phenomena, 2012, 186, 177-181.	0.3	8
100	Compact Alcohol Vapor Sensor based on Zinc Oxide Nano-coating Deposited by Atomic Layer Deposition method on Optical Fiber End-face. Procedia Engineering, 2012, 47, 1081-1084.	1.2	3
101	Optical and magnetic properties of ZnCoO layers. Optical Materials, 2012, 34, 2045-2049.	1.7	4
102	Hydrogen Sensing Properties of Thin NiO Films Deposited by RF Sputtering. Procedia Engineering, 2012, 47, 746-749.	1.2	21
103	Plasmaâ€assisted MBE growth of GaN on Si(111) substrates. Crystal Research and Technology, 2012, 47, 307-312.	0.6	26
104	Atomic layer deposition grown composite dielectric oxides and ZnO for transparent electronic applications. Thin Solid Films, 2012, 520, 4694-4697.	0.8	46
105	X-ray Absorption Fine Structure Investigation of the Low Temperature Grown ZnCoO Films. Acta Physica Polonica A, 2012, 121, 883-887.	0.2	3
106	Structure Dependent Conductivity of Ultrathin ZnO Films. Acta Physica Polonica A, 2012, 122, 1042-1044.	0.2	0
107	Zinc oxide for electronic, photovoltaic and optoelectronic applications. Low Temperature Physics, 2011, 37, 235-240.	0.2	73
108	Influence of Thermal and Gamma Radiation on Electrical Properties of Thin NiO Films Formed by RF Sputtering. Procedia Engineering, 2011, 25, 367-370.	1.2	4

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109	Nanolayers of a PV metamaterial buried within a single crystal Si: SEM and reflectivity observations. Proceedings of SPIE, 2011, , .	0.8	0
110	Aluminum-doped zinc oxide films grown by atomic layer deposition for transparent electrode applications. Journal of Materials Science: Materials in Electronics, 2011, 22, 1810-1815.	1.1	98
111	Synchrotron photoemission study of (Zn,Co)O films with uniform Co distribution. Radiation Physics and Chemistry, 2011, 80, 1046-1050.	1.4	1
112	Role of interface in ferromagnetism of (Zn,Co)O films. Physica Status Solidi (B): Basic Research, 2011, 248, 1596-1600.	0.7	12
113	The uniformity of Al distribution in aluminum-doped zinc oxide films grown by atomic layer deposition. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 237-241.	1.7	38
114	Hafnium dioxide as a passivating layer and diffusive barrier in ZnO/Ag Schottky junctions obtained by atomic layer deposition. Applied Physics Letters, 2011, 98, .	1.5	26
115	BSDB: the biomolecule stretching database. Nucleic Acids Research, 2011, 39, D443-D450.	6.5	35
116	Electrical parameters of ZnO films and ZnO-based junctions obtained by atomic layer deposition. Semiconductor Science and Technology, 2011, 26, 085013.	1.0	14
117	Cathodoluminescence Profiling for Checking Uniformity of ZnO and ZnCoO Thin Films. Acta Physica Polonica A, 2011, 119, 675-677.	0.2	3
118	ZnO Nanopowders by a Microwave Hydrothermal Method - Influence of the Precursor Type on Grain Sizes. Acta Physica Polonica A, 2011, 119, 683-685.	0.2	4
119	Properties and Characterization of ALD Grown Dielectric Oxides for MIS Structures. Acta Physica Polonica A, 2011, 119, 692-695.	0.2	25
120	Photoluminescence and Chromaticity Properties of ZnO Nanopowders Made by a Microwave Hydrothermal Method. Acta Physica Polonica A, 2011, 120, 908-910.	0.2	4
121	Schottky Junctions Based on the ALD-ZnO Thin Films for Electronic Applications. Acta Physica Polonica A, 2011, 120, A-17-A-21.	0.2	8
122	Cathodoluminescence Measurements at Liquid Helium Temperature of Poly- and Monocrystalline ZnO Films. Acta Physica Polonica A, 2011, 120, A-28-A-30.	0.2	2
123	Capability of Semiconducting NiO Films in Gamma Radiation Dosimetry. Acta Physica Polonica A, 2011, 120, A-69-A-72.	0.2	2
124	Epitaxial ZnO Films Grown at Low Temperature for Novel Electronic Application. Acta Physica Polonica A, 2011, 120, A-7-A-10.	0.2	8
125	Optical and Structural Characterization of Zinc Oxide Nanostructures Obtained by Atomic Layer Deposition Method. Acta Physica Polonica A, 2011, 120, 905-907.	0.2	1
126	Monocrystalline zinc oxide films grown by atomic layer deposition. Thin Solid Films, 2010, 518, 4556-4559.	0.8	35

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127	Transparent and conductive undoped zinc oxide thin films grown by atomic layer deposition. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1568-1571.	0.8	56
128	Seeded growth of bulk ZnO by chemical vapor transport. Physica Status Solidi (B): Basic Research, 2010, 247, 1457-1459.	0.7	17
129	Electrical and optical properties of zinc oxide layers grown by the low-temperature atomic layer deposition technique. Physica Status Solidi (B): Basic Research, 2010, 247, 1653-1657.	0.7	4
130	Comparison of dimethylzinc and diethylzinc as precursors for monocrystalline zinc oxide grown by atomic layer deposition method. Physica Status Solidi (B): Basic Research, 2010, 247, 1699-1701.	0.7	13
131	Effects related to deposition temperature of ZnCoO films grown by atomic layer deposition - uniformity of Co distribution, structural, optical, electrical and magnetic properties. Physica Status Solidi (B): Basic Research, 2010, 247, 1666-1670.	0.7	14
132	Zinc oxide grown by atomic layer deposition - a material for novel 3D electronics. Physica Status Solidi (B): Basic Research, 2010, 247, 1611-1615.	0.7	17
133	Growth conditions and structural properties as limiting factors of electrical parameters of ZnO thin films grown by Atomic Layer Deposition with diethylzinc and water precursors. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1550-1552.	0.8	3
134	The properties of tris (8-hydroxyquinoline) aluminum organic light emitting diode with undoped zinc oxide anode layer. Journal of Applied Physics, 2010, 108, 064518.	1.1	25
135	ZnO by ALD - Advantages of the Material Grown at Low Temperature. Acta Physica Polonica A, 2009, 116, 814-817.	0.2	19
136	ZnCoO Films by Atomic Layer Deposition - Influence of a Growth Temperature Î¿n Uniformity of Cobalt Distribution. Acta Physica Polonica A, 2009, 116, 921-923.	0.2	6
137	Carbazole Derivative Based Near Ultraviolet Organic Light Emitting Diode with ZnMgO:Al Anode Layer. Solid State Phenomena, 0, 200, 45-49.	0.3	4