Enda McGlynn

List of Publications by Year
in descending order

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135 papers	2,060 citations	236925 25 h-index	315739 38 g-index
139 all docs	139 docs citations	139 times ranked	2565 citing authors

#	Article	IF	Citations
1	Surface excitonic emission and quenching effects in ZnO nanowire/nanowall systems: Limiting effects on device potential. Physical Review B, 2005, 71, .	3.2	183
2	Structural, optical and magnetic properties of Cr doped ZnO microrods prepared by spray pyrolysis method. Applied Surface Science, 2011, 257, 9293-9298.	6.1	88
3	Structural, optical and magnetic properties of Ni-doped ZnO micro-rods grown by the spray pyrolysis method. Chemical Physics Letters, 2012, 525-526, 72-76.	2.6	62
4	Multiphoton excitation of surface plasmon-polaritons and scaling of nanoripple formation in large bandgap materials. Optical Materials Express, 2013, 3, 1705.	3.0	60
5	Identification of donor-related impurities in ZnO using photoluminescence and radiotracer techniques. Physical Review B, 2006, 73, .	3.2	59
6	Control of ZnO nanorod array density by Zn supersaturation variation and effects on field emission. Nanotechnology, 2007, 18, 215704.	2.6	48
7	Correlation of Raman and X-ray diffraction measurements of annealed pulsed laser deposited ZnO thin films. Thin Solid Films, 2003, 436, 273-276.	1.8	46
8	Studying the growth conditions, the alignment and structure of ZnO nanorods. Surface and Coatings Technology, 2005, 200, 1093-1096.	4.8	43
9	Properties of Li-, P- and N-doped ZnO thin films prepared by pulsed laser deposition. Superlattices and Microstructures, 2005, 38, 397-405.	3.1	37
10	A Study of Drop-Coated and Chemical Bath-Deposited Buffer Layers for Vapor Phase Deposition of Large Area, Aligned, Zinc Oxide Nanorod Arrays. Crystal Growth and Design, 2010, 10, 2400-2408.	3.0	36
11	RHEED studies of nucleation of Ge islands on Si(001) and optical properties of ultra-small Ge quantum dots. Thin Solid Films, 2000, 369, 79-83.	1.8	35
12	(20â^'23) ZnO thin films grown by pulsed laser deposition on CeO2-buffered r-sapphire substrate. Journal of Applied Physics, 2007, 101, 013509.	2.5	34
13	Characterization of nitrogen-doped ZnO thin films grown by plasma-assisted pulsed laser deposition on sapphire substrates. Superlattices and Microstructures, 2007, 42, 21-25.	3.1	34
14	H2O2-assisted photoelectrocatalytic degradation of Mitoxantrone using CuO nanostructured films: Identification of by-products and toxicity. Science of the Total Environment, 2019, 651, 2845-2856.	8.0	34
15	Carbothermal reduction vapor phase transport growth of ZnO nanostructures: Effects of various carbon sources. Journal of Applied Physics, 2009, 105, .	2.5	33
16	Alignment, Morphology and Defect Control of Vertically Aligned ZnO Nanorod Array: Competition between â€œSurfactantâ€•and â€œStabilizerâ€•Roles of the Amine Species and Its Photocatalytic Properties. Crystal Growth and Design, 2014, 14, 2873-2879.	3.0	33
17	Structural, optical and magnetic properties of Zn1â^'xMnxO micro-rod arrays synthesized by spray pyrolysis method. Thin Solid Films, 2012, 520, 5172-5178.	1.8	32
18	ZnO films grown by pulsed-laser deposition on soda lime glass substrates for the ultraviolet inactivation of Staphylococcus epidermidis biofilms. Science and Technology of Advanced Materials, 2009, 10, 045003.	6.1	31

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19	Growth of ZnO nanostructures on Au-coated Si: Influence of growth temperature on growth mechanism and morphology. Journal of Applied Physics, 2008, 104, .	2.5	30
20	Microscopic origins of the surface exciton photoluminescence peak in ZnO nanostructures. Physical Review B, 2011, 83, .	3.2	30
21	Defect-induced room temperature ferromagnetism in B-doped ZnO. Ceramics International, 2013, 39, 4609-4617.	4.8	30
22	Study of Morphological and Related Properties of Aligned Zinc Oxide Nanorods Grown by Vapor Phase Transport on Chemical Bath Deposited Buffer Layers. Crystal Growth and Design, 2011, 11, 5378-5386.	3.0	29
23	A novel, substrate independent three-step process for the growth of uniform ZnO nanorod arrays. Thin Solid Films, 2010, 518, 4489-4492.	1.8	27
24	A catalyst-free and facile route to periodically ordered and c-axis aligned ZnO nanorod arrays on diverse substrates. Nanoscale, 2011, 3, 1675.	5.6	25
25	Effects of Cu diffusion-doping on structural, optical, and magnetic properties of ZnO nanorod arrays grown by vapor phase transport method. Journal of Applied Physics, 2012, 111, 013903.	2.5	25
26	Pulsed laser deposition of ZnO and Mn-doped ZnO thin films. Applied Surface Science, 2003, 208-209, 589-593.	6.1	24
27	Unambiguous identification of the role of a single Cu atom in the ZnO structured green band. Journal of Physics Condensed Matter, 2012, 24, 215802.	1.8	24
28	Synthesis and characterization of Mn-doped ZnO nanorods grown in an ordered periodic honeycomb pattern using nanosphere lithography. Ceramics International, 2014, 40, 7753-7759.	4.8	24
29	Electrical characterisation of phosphorus-doped ZnO thin films grown by pulsed laser deposition. Superlattices and Microstructures, 2007, 42, 74-78.	3.1	23
30	Multiphoton-absorption induced ultraviolet luminescence of ZnO nanorods using low-energy femtosecond pulses. Journal of Applied Physics, 2010, 108, .	2.5	23
31	Relativistic laser nano-plasmonics for effective fast particle production. Plasma Physics and Controlled Fusion, 2016, 58, 014038.	2.1	22
32	Effects of the crystallite mosaic spread on integrated peak intensities in 2Î¸â€“ï‰ measurements of highly crystallographically textured ZnO thin films. Journal Physics D: Applied Physics, 2011, 44, 375401.	2.8	20
33	The luminescent properties of CuAlO₂. Journal of Materials Chemistry C, 2014, 2, 7859-7868.	5.5	20
34	Effect of polycrystallinity on the optical properties of highly oriented ZnO grown by pulsed laser deposition. Thin Solid Films, 2004, 458, 330-335.	1.8	19
35	Highly transparent and reproducible nanocrystalline ZnO and AZO thin films grown by room temperature pulsed-laser deposition on flexible Zeonor plastic substrates. Materials Research Express, 2015, 2, 096401.	1.6	19
36	Fabrication of p-type doped ZnO thin films using pulsed laser deposition. Journal of Materials Science: Materials in Electronics, 2005, 16, 421-427.	2.2	18

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37	Effects of excitonic diffusion on stimulated emission in nanocrystalline ZnO. Applied Physics Letters, 2006, 88, 071919.	3.3	18
38	Synthesis and photoluminescence of ZnO nanowires/nanorods. Journal of Materials Science: Materials in Electronics, 2005, 16, 397-401.	2.2	17
39	ZnO nanorods for efficient third harmonic UV generation. Optical Materials Express, 2014, 4, 701.	3.0	17
40	Defect luminescence of GaN grown by pulsed laser deposition. Journal of Crystal Growth, 2001, 222, 497-502.	1.5	16
41	Study of photoluminescence at 3.310 and 3.368 eV in GaN/sapphire(0001) and GaN/GaAs(001) grown by liquid-target pulsed-laser deposition. Applied Physics Letters, 2002, 80, 3301-3303.	3.3	16
42	Field emission in ordered arrays of ZnO nanowires prepared by nanosphere lithography and extended Fowler-Nordheim analyses. Journal of Applied Physics, 2011, 110, .	2.5	16
43	Excitonic properties of the polar faces of bulk ZnO after wet etching. Physica B: Condensed Matter, 2003, 340-342, 210-215.	2.7	15
44	Pulsed laser deposition of manganese doped GaN thin films. Solid-State Electronics, 2003, 47, 533-537.	1.4	15
45	ZnO thin films grown on platinum (111) buffer layers by pulsed laser deposition. Thin Solid Films, 2006, 500, 78-83.	1.8	15
46	ZnO nanostructured thin films grown by pulsed laser deposition in mixed O2 / Ar background gas. Superlattices and Microstructures, 2007, 42, 468-472.	3.1	15
47	Photoluminescence analysis of semiconductors using radioactive isotopes. , 2000, 129, 443-460.		14
48	Ultraviolet stimulated emission from bulk and polycrystalline ZnO thin films with varying grain sizes. Physica B: Condensed Matter, 2003, 340-342, 245-249.	2.7	14
49	The dominant role of adsorbed fluid layers on the polar surfaces of ZnO in ambient atmospheric conditions. Nanotechnology, 2004, 15, 1797-1801.	2.6	14
50	Chemical identification of luminescence due to Sn and Sb in ZnO. Applied Physics Letters, 2013, 102, 192110.	3.3	13
51	Precise Definition of a â€œMonolayer Pointâ€•in Polymer Brush Films for Fabricating Highly Coherent TiO₂ Thin Films by Vapor-Phase Infiltration. Langmuir, 2020, 36, 12394-12402.	3.5	13
52	Analysing trimethylaluminum infiltration into polymer brushes using a scalable area selective vapor phase process. Materials Advances, 2021, 2, 769-781.	5.4	13
53	Optical characterisation of thin film benzocyclobutene (BCB) based polymers. Microelectronic Engineering, 1997, 33, 363-368.	2.4	12
54	Comparison of structural, optical and electrical properties of undoped ZnO thin films grown on -and - Al2O3 substrates using pulsed laser deposition. Superlattices and Microstructures, 2005, 38, 256-264.	3.1	12

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55	The First EU ScienceOlympiad (EUSO): a modelfor science education. Journal of Biological Education, 2005, 39, 58-62.	1.5	12
56	Carbothermal reduction growth of ZnO nanostructures on sapphireâ€"comparisons between graphite and activated charcoal powders. Microelectronics Journal, 2009, 40, 259-261.	2.0	12
57	Theoretical Analysis of Nucleation and Growth of ZnO Nanostructures in Vapor Phase Transport Growth. Crystal Growth and Design, 2011, 11, 4581-4587.	3.0	12
58	Dellafossite CuAlO2 film growth and conversion to Cuâ€"Al2O3 metal ceramic composite via control of annealing atmospheres. CrystEngComm, 2013, 15, 6144.	2.6	12
59	Crystalline ZnO/Amorphous ZnO Core/Shell Nanorods: Self-Organized Growth, Structure, and Novel Luminescence. Journal of Physical Chemistry C, 2015, 119, 4848-4855.	3.1	12
60	Influence of C4F8/Ar/O2 plasma etching on SiO2 surface chemistry. Journal of Materials Science: Materials in Electronics, 2005, 16, 541-547.	2.2	11
61	Control of ZnO nanowire arrays by nanosphere lithography (NSL) on laser-produced ZnO substrates. Applied Surface Science, 2011, 257, 5159-5162.	6.1	11
62	Length versus Radius Relationship for ZnO Nanowires Grown via Vapor Phase Transport. Crystal Growth and Design, 2012, 12, 5972-5979.	3.0	11
63	Low temperature growth technique for nanocrystalline cuprous oxide thin films using microwave plasma oxidation of copper. Materials Letters, 2012, 71, 160-163.	2.6	11
64	Growth of isotopically enriched ZnO nanorods of excellent optical quality. Journal of Crystal Growth, 2015, 429, 6-12.	1.5	11
65	High quality interconnected core/shell ZnO nanorod architectures grown by pulsed laser deposition on ZnO-seeded Si substrates. Superlattices and Microstructures, 2017, 101, 8-14.	3.1	11
66	Photoluminescence study of cadmium-related defects in oxygen-rich silicon. Physical Review B, 1996, 54, 14494-14503.	3.2	10
67	Optical absorption of a Li-related impurity in ZnO. Physica B: Condensed Matter, 2003, 340-342, 225-229.	2.7	10
68	Study of excitonâ€"polariton modes in nanocrystalline thin films of ZnO using reflectance spectroscopy. Nanotechnology, 2005, 16, 2625-2632.	2.6	10
69	Influence of ZnO nanowire array morphology on field emission characteristics. Nanotechnology, 2014, 25, 135604.	2.6	10
70	Control and enhancement of the oxygen storage capacity of ceria films by variation of the deposition gas atmosphere during pulsed DC magnetron sputtering. Journal of Power Sources, 2015, 279, 94-99.	7.8	10
71	Control of crystal structure, morphology and optical properties of ceria films by post deposition annealing treatments. Thin Solid Films, 2016, 603, 363-370.	1.8	10
72	Hard x-ray photoelectron spectroscopy study of copper formation by metal salt inclusion in a polymer film. Journal Physics D: Applied Physics, 2019, 52, 435301.	2.8	10

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73	Radioactive Isotope Identifications of Au and Pt Photoluminescence Centres in Silicon. Physica Status Solidi (B): Basic Research, 1998, 210, 853-858.	1.5	9
74	Infrared light emission from GaAs MESFETs operating at avalanche breakdown conditions. Semiconductor Science and Technology, 2004, 19, S94-S95.	2.0	9
75	Growth of crystalline ZnO nanostructures using pulsed laser deposition. Superlattices and Microstructures, 2006, 39, 153-161.	3.1	9
76	Optical properties of undoped and oxygen doped CuCl films on silicon substrates. Journal of Materials Science: Materials in Electronics, 2009, 20, 76-80.	2.2	9
77	Photoelectrocatalytic Degradation of Methylene Blue Using ZnO Nanorods Fabricated on Silicon Substrates. Journal of Nanoscience and Nanotechnology, 2020, 20, 1177-1188.	0.9	9
78	Evaluation of the optical properties of epitaxial lateral overgrown gallium nitride on sapphire and the role of optically active metastable defects using cathodoluminescence and photoluminescence spectroscopy. Thin Solid Films, 2005, 473, 308-314.	1.8	8
79	Thermodynamic aspects of the gas atmosphere and growth mechanism in carbothermal vapour phase transport synthesis of ZnO nanostructures. Thin Solid Films, 2010, 518, 4578-4581.	1.8	8
80	Defect-mediated ferromagnetism in ZnO:Mn nanorods. Applied Physics A: Materials Science and Processing, 2014, 115, 313-321.	2.3	8
81	Investigation of optical metastability in GaN using photoluminescence spectroscopy. Physica B: Condensed Matter, 2003, 340-342, 452-456.	2.7	7
82	Morphological control of ZnO nanostructures on silicon substrates. Superlattices and Microstructures, 2007, 42, 337-342.	3.1	7
83	Surface characterization of poly-2-vinylpyridineâ€"A polymer for area selective deposition techniques. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, 050601.	2.1	7
84	Aluminium oxide formation via atomic layer deposition using a polymer brush mediated selective infiltration approach. Applied Surface Science, 2020, 515, 145987.	6.1	7
85	The evolution of point defects in semiconductors studied using the decay of implanted radioactive isotopes. Nuclear Instruments & Methods in Physics Research B, 2001, 178, 256-259.	1.4	6
86	Excitonâ€"polariton behaviour in bulk and polycrystalline ZnO. Physica B: Condensed Matter, 2003, 340-342, 230-234.	2.7	6
87	p-type conduction above room temperature in nitrogen-doped ZnO thin film grown by plasma-assisted pulsed laser deposition. Electronics Letters, 2006, 42, 1181.	1.0	6
88	Splitting of point defect energy levels in wurtzite crystals under uniaxial stresses applied along arbitrary directions. Physical Review B, 2007, 76, .	3.2	6
89	Evidence for As lattice location and Ge bound exciton luminescence in ZnO implanted with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">As</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>73</mml:mn></mml:mrow></mml:mmultiscripts></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">Ge</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>73</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>	3.2	6
90	Study of exciton-polariton modes in nanocrystalline thin films of CuCl using reflectance spectroscopy. Journal of Applied Physics, 2012, 112, 033505.	2.5	6

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91	The complexing of oxygen with the Group II impurities Be, Cd and Zn in silicon. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1996, 36, 116-119.	3.5	5
92	Comparative study of the expansion dynamics of Ga+ ions in the laser ablation of Ga and GaN using time-resolved extreme UV absorption spectroscopy. Applied Surface Science, 2000, 168, 150-153.	6.1	5
93	Uniaxial stress study of the1026â^'meVcenter inSi:Pt. Physical Review B, 2001, 63, .	3.2	5
94	Growth and characterisation of epitaxially ordered zinc aluminate domains on c-sapphire. Thin Solid Films, 2008, 516, 1725-1735.	1.8	5
95	Spatial inhomogeneity of donor bound exciton emission from ZnO nanostructures grown on Si. Nanotechnology, 2009, 20, 255703.	2.6	5
96	Growth and field emission properties of ZnO nanostructures deposited by a novel pulsed laser ablation source on silicon substrates. Ultramicroscopy, 2009, 109, 399-402.	1.9	5
97	UV emission on a Si substrate: Optical and structural properties of Î³-CuCl on Si grown using liquid phase epitaxy techniques. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 923-926.	1.8	5
98	Uniaxial stress and Zeeman spectroscopy of the 3.324-eV Ge-related photoluminescence in ZnO. Physical Review B, 2013, 87, .	3.2	5
99	Pronounced effects of oxygen growth pressure on structure and properties of ZnO and AZO films laser deposited on Zeonor polymer. Thin Solid Films, 2017, 621, 171-177.	1.8	5
100	Field enhancement of multiphoton induced luminescence processes in ZnO nanorods. Journal Physics D: Applied Physics, 2018, 51, 105306.	2.8	5
101	A new science competition for secondary school students: the First European Union Science Olympiad. European Journal of Physics, 2004, 25, 23-29.	0.6	4
102	Nitrogen doping of ZnO thin films grown by plasma-assisted pulsed-laser deposition. Journal of Physics: Conference Series, 2007, 59, 505-509.	0.4	4
103	Origin of the 3.331 eV emission in ZnO nanorods: Comparison of vapour phase transport and pulsed laser deposition grown nanorods. Journal of Luminescence, 2016, 175, 117-121.	3.1	4
104	Enhanced Optical Properties of ZnO and CeO2-coated ZnO Nanostructures Achieved Via Spherical Nanoshells Growth On A Polystyrene Template. Scientific Reports, 2017, 7, 3737.	3.3	4
105	Self-organized ZnAl2O4 nanostructures grown on -sapphire. Superlattices and Microstructures, 2007, 42, 327-332.	3.1	3
106	ZnO nanorods for efficient third harmonic UV generation: erratum. Optical Materials Express, 2014, 4, 1243.	3.0	3
107	Chemical and electrical characterisation of the segregation of Al from a CuAl alloy (90%:10% wt) with thermal anneal. Thin Solid Films, 2016, 599, 59-63.	1.8	3
108	A photoluminescence study of a series of closely related axial defects of monoclinic I and rhombic I symmetry in oxygen-rich, zinc-doped silicon. Semiconductor Science and Technology, 1996, 11, 930-934.	2.0	2

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109	The 777meV photoluminescence band in Si:Pt. Physica B: Condensed Matter, 1999, 273-274, 420-423.	2.7	2
110	Deep level anomalies in silicon doped with radioactive Au atoms. Physica B: Condensed Matter, 1999, 273-274, 433-436.	2.7	2
111	Comment on â€œThermodynamic derivations of the mechanical equilibrium conditions for fluid surfaces: Youngâ€™s and Laplaceâ€™s equations,â€•by P. Roura [Am. J. Phys. 73 (12), 1139â€“1147 (2005)]. American Journal of Physics, 2006, 74, 937-938.	0.7	2
112	P-type nitrogen- and phosphorus-doped ZnO thin films grown by pulsed laser deposition on sapphire substrates. , 2007, , .		2
113	A note on linking electrical current, magnetic fields, charges and the pole in a barn paradox in special relativity. European Journal of Physics, 2008, 29, N63-N67.	0.6	2
114	The Hg isoelectronic defect in ZnO. Journal of Applied Physics, 2013, 114, 193515.	2.5	2
115	Growth of 18 O isotopicallyÂenriched ZnO nanorods by two novel VPT methods. Journal of Crystal Growth, 2017, 460, 85-93.	1.5	2
116	Piezo-spectroscopic induced perturbations for defects in cubic crystals under uniaxial stress applied along arbitrary low-symmetry crystal directions. Journal of Physics Condensed Matter, 2000, 12, 7055-7068.	1.8	1
117	Pulsed laser deposition of wide-bandgap semiconductor thin films. , 2003, 4876, 508.		1
118	Introducing gyroscopes quantitatively without putting students into a spin. European Journal of Physics, 2007, 28, 479-486.	0.6	1
119	Local atomic environment of the Cu-related defect in zinc oxide. Journal Physics D: Applied Physics, 2017, 50, 145105.	2.8	1
120	Rapid area deactivation for blocking atomic layer deposition processes using polystyrene brush layers. Journal of Materials Chemistry C, 2022, 10, 7476-7484.	5.5	1
121	Fabrication of High-Îº Dielectric Metal Oxide Films on Topographically Patterned Substrates: Polymer Brush-Mediated Depositions. ACS Applied Materials & Interfaces, 0, , .	8.0	1
122	Imaging semiconductor wafers using photoluminescence. Optical Engineering, 1994, 33, 3974.	1.0	0
123	Oxygen complexing with group II impurities in silicon. Solid State Communications, 1995, 93, 454.	1.9	0
124	Photoluminescence spectroscopy of an Al-C complex in silicon. Physical Review B, 1999, 59, 10084-10090.	3.2	0
125	Study of bound exciton excited state structure using photothermal ionisation spectroscopy. Physica B: Condensed Matter, 1999, 273-274, 1011-1014.	2.7	0
126	Cadmiumâ€“lithium defects in silicon. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 58, 159-162.	3.5	0

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127	Photoluminescence study of GaN grown by pulsed laser deposition in nitrogen atmosphere. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 82, 128-130.	3.5	0
128	Laterally and vertically grown ZnO nanostructures on sapphire. , 2005, , .		0
129	Spectroscopic study of the properties of chemically modified ZnO nanowires. , 2005, , .		0
130	Morphological control of ZnO nanostructures grown on silicon. , 2007, 6474, 238.		0
131	Spatially Resolved Investigation of the Optical and Structural Properties of CuCl Thin Films on Si. , 2010, , .		0
132	Microscopic origins of the surface exciton photoluminescence in ZnO nanostructures. Proceedings of SPIE, 2012, , .	0.8	0
133	Observation of epitaxially ordered twinned zinc aluminate â€œnanobladesâ€•on c-sapphire. Journal of Materials Science: Materials in Electronics, 2012, 23, 758-765.	2.2	0
134	The identification and nature of bound exciton I-line PL systems in ZnO. , 2013, , .		0
135	Crystal Symmetry, Lattice Vibrations, and Optical Spectroscopy of Solids: A Group Theoretical Approach. Contemporary Physics, 2016, 57, 96-99.	1.8	0