

Leonard Deepak Francis

List of Publications by Year in descending order

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108
papers

4,281
citations

126907

33
h-index

114465

63
g-index

111
all docs

111
docs citations

111
times ranked

5883
citing authors

#	ARTICLE	IF	CITATIONS
1	Inorganic nanowires. Progress in Solid State Chemistry, 2003, 31, 5-147.	7.2	690
2	Absence of ferromagnetism in Mn- and Co-doped ZnO. Journal of Materials Chemistry, 2005, 15, 573.	6.7	304
3	Surfactant-assisted synthesis of semiconductor nanotubes and nanowires. Applied Physics Letters, 2001, 78, 1853-1855.	3.3	233
4	Tuning the bandgap of ZnO by substitution with Mn ²⁺ , Co ²⁺ and Ni ²⁺ . Solid State Communications, 2005, 135, 345-347.	1.9	206
5	Boron nitride nanotubes and nanowires. Chemical Physics Letters, 2002, 353, 345-352.	2.6	153
6	Synthetic strategies for Y-junction carbon nanotubes. Chemical Physics Letters, 2001, 345, 5-10.	2.6	108
7	Carbon-assisted synthesis of inorganic nanowires. Journal of Materials Chemistry, 2004, 14, 440.	6.7	93
8	A Systematic Study of the Structural and Magnetic Properties of Mn-, Co-, and Ni-Doped Colloidal Magnetite Nanoparticles. Journal of Physical Chemistry C, 2015, 119, 11947-11957.	3.1	93
9	Nanomaterial Properties: Size and Shape Dependencies. Journal of Nanomaterials, 2012, 2012, 1-2.	2.7	87
10	Carbon nanotubes by nebulized spray pyrolysis. Chemical Physics Letters, 2004, 386, 313-318.	2.6	85
11	InN Nanocrystals, Nanowires, and Nanotubes. Small, 2004, 1, 91-94.	10.0	84
12	In Situ Atomic-Scale Study of Particle-Mediated Nucleation and Growth in Amorphous Bismuth to Nanocrystal Phase Transformation. Advanced Science, 2018, 5, 1700992.	11.2	74
13	Photoluminescence spectra and ferromagnetic properties of GaMnN nanowires. Chemical Physics Letters, 2003, 374, 314-318.	2.6	61
14	Experimental Evidence of Icosahedral and Decahedral Packing in One-Dimensional Nanostructures. ACS Nano, 2011, 5, 6272-6278.	14.6	61
15	Anisotropic gold nanoparticles and gold plates biosynthesis using alfalfa extracts. Journal of Nanoparticle Research, 2011, 13, 3113-3121.	1.9	61
16	Direct Imaging and Identification of Individual Dopant Atoms in MoS ₂ and WS ₂ Catalysts by Aberration Corrected Scanning Transmission Electron Microscopy. ACS Catalysis, 2011, 1, 537-543.	11.2	59
17	In ₂ O ₃ nanowires, nanobouquets and nanotrees. Chemical Physics Letters, 2004, 397, 329-334.	2.6	57
18	Physicochemical Characterization, and Relaxometry Studies of Micro-Graphite Oxide, Graphene Nanoplatelets, and Nanoribbons. PLoS ONE, 2012, 7, e38185.	2.5	57

#	ARTICLE	IF	CITATIONS
19	Surface Science and Colloidal Stability of Double-Perovskite Cs ₂ AgBiBr ₆ Nanocrystals and Their Superlattices. Chemistry of Materials, 2019, 31, 7962-7969.	6.7	57
20	Synthesis, Morphology, and Optical Characterization of Nanocrystalline Er ³⁺ :Y ₂ O ₃ . Journal of Physical Chemistry C, 2010, 114, 874-880.	3.1	56
21	Synthesis of Core-Shell Inorganic Nanotubes. Advanced Functional Materials, 2010, 20, 2459-2468.	14.9	54
22	Fullerene-Like (IF) Nb _x Mo _{1-x} S ₂ Nanoparticles. Journal of the American Chemical Society, 2007, 129, 12549-12562.	13.7	49
23	Carbothermal Synthesis of the Nanostructures of Al ₂ O ₃ and ZnO. Topics in Catalysis, 2003, 24, 137-146.	2.8	46
24	A study of the dispersions of metal oxide nanowires in polar solvents. Chemical Physics Letters, 2006, 417, 535-539.	2.6	43
25	From Chromonic Self-Assembly to Hollow Carbon Nanofibers: Efficient Materials in Supercapacitor and Vapor-Sensing Applications. ACS Applied Materials & Interfaces, 2016, 8, 31231-31238.	8.0	43
26	Boron doped Ni-rich LiNi _{0.85} Co _{0.10} Mn _{0.05} O ₂ cathode materials studied by structural analysis, solid state NMR, computational modeling, and electrochemical performance. Energy Storage Materials, 2021, 42, 594-607.	18.0	42
27	Nature and electronic properties of Y-junctions in CNTs and N-doped CNTs obtained by the pyrolysis of organometallic precursors. Chemical Physics Letters, 2005, 411, 468-473.	2.6	41
28	Adsorption of Glucose Oxidase to 3D Scaffolds of Carbon Nanotubes: Analytical Applications. Electroanalysis, 2011, 23, 1462-1469.	2.9	41
29	Carbon-assisted synthesis of nanowires and related nanostructures of MgO. Materials Research Bulletin, 2005, 40, 831-839.	5.2	38
30	Synthesis and characterization of reduced graphene oxide/spiky nickel nanocomposite for nanoelectronic applications. Journal of Materials Chemistry C, 2015, 3, 11516-11523.	5.5	35
31	High power and low critical current density spin transfer torque nano-oscillators using MgO barriers with intermediate thickness. Scientific Reports, 2017, 7, 7237.	3.3	35
32	A Raman Study of CdSe and ZnSe Nanostructures. Journal of Nanoscience and Nanotechnology, 2002, 2, 495-498.	0.9	34
33	Structure and catalytic properties of hexagonal molybdenum disulfide nanoplates. Catalysis Science and Technology, 2011, 1, 1024.	4.1	34
34	In Situ Atomic-Scale Observation of Droplet Coalescence Driven Nucleation and Growth at Liquid/Solid Interfaces. ACS Nano, 2017, 11, 5590-5597.	14.6	34
35	Fullerene-like Mo(W) _{1-x} Re _x S ₂ Nanoparticles. Chemistry - an Asian Journal, 2008, 3, 1568-1574.	3.3	33
36	Fullerene-like WS ₂ nanoparticles and nanotubes by the vapor-phase synthesis of WCl ₅ and H ₂ S. Nanotechnology, 2008, 19, 095601.	2.6	33

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37	Insights into the capping and structure of MoS ₂ nanotubes as revealed by aberration-corrected STEM. <i>Nanoscale</i> , 2010, 2, 2286.	5.6	32
38	Semiconductor nanorods: Cu, Zn, and Cd chalcogenides. <i>Israel Journal of Chemistry</i> , 2001, 41, 23-30.	2.3	31
39	Faceted MoS ₂ nanotubes and nanoflowers. <i>Materials Chemistry and Physics</i> , 2009, 118, 392-397.	4.0	31
40	Carbon-assisted synthesis of silicon nanowires. <i>Chemical Physics Letters</i> , 2003, 381, 579-583.	2.6	30
41	Nanorotors using asymmetric inorganic nanorods in an optical trap. <i>Nanotechnology</i> , 2006, 17, S287-S290.	2.6	29
42	Thermal Stability of the Black Perovskite Phase in Cesium Lead Iodide Nanocrystals Under Humid Conditions. <i>Chemistry of Materials</i> , 2019, 31, 9750-9758.	6.7	29
43	Magneto-Plasmonic Colloidal Nanoparticles Obtained by Laser Ablation of Nickel and Silver Targets in Water. <i>Journal of Physical Chemistry C</i> , 2017, 121, 3597-3606.	3.1	28
44	Hydrogen Production by Steam Reforming of Methanol over a Ag/ZnO One Dimensional Catalyst. <i>Advanced Materials Research</i> , 0, 132, 205-219.	0.3	27
45	New insights into the structure of Pd@Au nanoparticles as revealed by aberration-corrected STEM. <i>Journal of Crystal Growth</i> , 2011, 325, 60-67.	1.5	27
46	In Situ Atomic-Scale Observation of Kinetic Pathways of Sublimation in Silver Nanoparticles. <i>Advanced Science</i> , 2019, 6, 1802131.	11.2	27
47	Crystalline silica nanowires. <i>Journal of Materials Research</i> , 2004, 19, 2216-2220.	2.6	26
48	High-Temperature Magnetism as a Probe for Structural and Compositional Uniformity in Ligand-Capped Magnetite Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2014, 118, 28322-28329.	3.1	26
49	Toward the use of CVD-grown MoS ₂ nanosheets as field-emission source. <i>Beilstein Journal of Nanotechnology</i> , 2018, 9, 1686-1694.	2.8	26
50	Ultrafine-Grained Porous Ir-Based Catalysts for High-Performance Overall Water Splitting in Acidic Media. <i>ACS Applied Energy Materials</i> , 2020, 3, 3736-3744.	5.1	26
51	Enhancing Light-Matter Interactions in MoS ₂ by Copper Intercalation. <i>Advanced Materials</i> , 2021, 33, e2008779.	21.0	25
52	Boosting acidic water oxidation performance by constructing arrays-like nanoporous Ir _x Ru _{1-x} O ₂ with abundant atomic steps. <i>Nano Research</i> , 2022, 15, 5933-5939.	10.4	25
53	Controlling Bimetallic Nanostructures by the Microemulsion Method with Subnanometer Resolution Using a Prediction Model. <i>Langmuir</i> , 2015, 31, 7435-7439.	3.5	22
54	Direct Atomic-Scale Observation of Intermediate Pathways of Melting and Crystallization in Supported Bi Nanoparticles. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 961-969.	4.6	22

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55	Rippled and Helical MoS ₂ Nanowire Catalysts: An Aberration Corrected STEM Study. <i>Catalysis Letters</i> , 2011, 141, 518-524.	2.6	19
56	Ag nanowires as precursors to synthesize novel Ag-CeO ₂ nanotubes for H ₂ production by methanol reforming. <i>Catalysis Today</i> , 2013, 212, 225-231.	4.4	19
57	Real-Time Dynamical Observation of Lattice Induced Nucleation and Growth in Interfacial Solid-Solid Phase Transitions. <i>Crystal Growth and Design</i> , 2016, 16, 7256-7262.	3.0	19
58	Nanotube array-based barium titanate-cobalt ferrite composite film for affordable magnetoelectric multiferroics. <i>Journal of Materials Chemistry C</i> , 2019, 7, 10066-10072.	5.5	19
59	Wavelength dispersion of the local field intensity in silver-gold nanocages. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 7355-7365.	2.8	18
60	Atomic-Scale Understanding of Gold Cluster Growth on Different Substrates and Adsorption-Induced Structural Change. <i>Journal of Physical Chemistry C</i> , 2018, 122, 1753-1760.	3.1	18
61	Optical Spectra of Nanowires of Cu and Zn Chalcogenides. <i>Journal of Nanoscience and Nanotechnology</i> , 2002, 2, 417-420.	0.9	17
62	MoS ₂ FULLERENE-LIKE NANOPARTICLES AND NANOTUBES USING GAS-PHASE REACTION WITH MoCl ₅ . <i>Nano</i> , 2006, 01, 167-180.	1.0	17
63	Atomic-scale dynamic observation reveals temperature-dependent multistep nucleation pathways in crystallization. <i>Nanoscale Horizons</i> , 2019, 4, 1302-1309.	8.0	17
64	Single Crystal GaN Nanowires. <i>Journal of Nanoscience and Nanotechnology</i> , 2001, 1, 303-308.	0.9	16
65	Structural transformation of MoO ₃ nanobelts into MoS ₂ nanotubes. <i>Applied Physics A: Materials Science and Processing</i> , 2009, 96, 861-867.	2.3	16
66	Probing of Thermal Transport in 50 nm Thick PbTe Nanocrystal Films by Time-Domain Thermoreflectance. <i>Journal of Physical Chemistry C</i> , 2018, 122, 27127-27134.	3.1	15
67	Morphology-Tunable Synthesis of Intrinsic Room-Temperature Ferromagnetic Fe_2O_3 Nanoflakes. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 24051-24061.	8.0	15
68	Large-Scale Fabrication of Hollow Pt ₃ Al Nanoboxes and Their Electrocatalytic Performance for Hydrogen Evolution Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 9842-9847.	6.7	14
69	Gas-phase synthesis of inorganic fullerene-like structures and inorganic nanotubes. <i>Open Chemistry</i> , 2008, 6, 373-389.	1.9	13
70	Switching Field Variation in MgO Magnetic Tunnel Junction Nanopillars: Experimental Results and Micromagnetic Simulations. <i>IEEE Transactions on Magnetics</i> , 2013, 49, 4405-4408.	2.1	13
71	Plasmonic response of DNA-assembled gold nanorods: Effect of DNA linker length, temperature and linker/nanoparticles ratio. <i>Journal of Colloid and Interface Science</i> , 2014, 433, 34-42.	9.4	13
72	On the structure of bimetallic noble metal nanoparticles as revealed by aberration corrected scanning transmission electron microscopy (STEM). <i>Micron</i> , 2012, 43, 557-564.	2.2	12

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73	Soft chemical routes to semiconductor nanostructures. <i>Pramana - Journal of Physics</i> , 2005, 65, 549-564.	1.8	11
74	A Convenient Route for Au@TiO ₂ /SiO ₂ Nanocatalyst Synthesis and Its Application for Room Temperature CO Oxidation. <i>Journal of Physical Chemistry C</i> , 2017, 121, 4946-4957.	3.1	11
75	Discussion about the use of the volume specific surface area (VSSA) as a criterion to identify nanomaterials according to the EU definition. Part two: experimental approach. <i>Nanoscale</i> , 2017, 9, 14952-14966.	5.6	11
76	<i>In situ</i> generation of sub-10 nm silver nanowires under electron beam irradiation in a TEM. <i>Chemical Communications</i> , 2020, 56, 4765-4768.	4.1	11
77	Engineering surface electron and active site at electrochemical sensing interface of CN vacancy-mediated Prussian blue analogue for analysis of heavy metal ions. <i>Applied Surface Science</i> , 2021, 564, 150131.	6.1	11
78	Improved synthesis of carbon nanotubes with junctions and of single-walled carbon nanotubes. <i>Journal of Chemical Sciences</i> , 2006, 118, 9-14.	1.5	10
79	Sustainable existence of solid mercury (Hg) nanoparticles at room temperature and their applications. <i>Chemical Science</i> , 2021, 12, 3226-3238.	7.4	10
80	Pressure-Induced Structural Phase Transformations in Silicon Nanowires. <i>Journal of Nanoscience and Nanotechnology</i> , 2005, 5, 729-732.	0.9	9
81	Recent Highlights in the Synthesis, Structure, Properties, and Applications of MoS ₂ Nanotubes. <i>Israel Journal of Chemistry</i> , 2010, 50, 426-438.	2.3	9
82	Single Walled BiI ₃ Nanotubes Encapsulated within Carbon Nanotubes. <i>Scientific Reports</i> , 2018, 8, 10133.	3.3	9
83	Structural and chemical analysis of gadolinium halides encapsulated within WS ₂ nanotubes. <i>Nanoscale</i> , 2016, 8, 12170-12181.	5.6	7
84	Properties of nanostructured GaN prepared by different methods. <i>Solid State Sciences</i> , 2004, 6, 1107-1112.	3.2	6
85	Self-Assembled Functionalized Graphene Nanoribbons from Carbon Nanotubes. <i>ChemistryOpen</i> , 2015, 4, 115-119.	1.9	6
86	Understanding alloy structure and composition in sinter-resistant AgPd@SiO ₂ encapsulated catalysts and their effect on catalytic properties. <i>New Journal of Chemistry</i> , 2017, 41, 14652-14658.	2.8	6
87	Morphological Phase Diagram of Gadolinium Iodide Encapsulated in Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2018, 122, 24967-24976.	3.1	6
88	Doxorubicin delivery performance of superparamagnetic carbon multi-core shell nanoparticles: pH dependence, stability and kinetic insight. <i>Nanoscale</i> , 2022, 14, 7220-7232.	5.6	6
89	Experimental and theoretical properties of S-Mo-Co-S clusters. <i>Applied Catalysis A: General</i> , 2011, 397, 46-53.	4.3	5
90	Synthesis and characterization of quaternary La(Sr)TaS ₂ misfit-layered nanotubes. <i>Beilstein Journal of Nanotechnology</i> , 2019, 10, 1112-1124.	2.8	5

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91	Optically Driven Nanorotors: Experiments and Model Calculations. Journal of Nanoscience and Nanotechnology, 2007, 7, 1800-1803.	0.9	4
92	A novel and high yield synthesis of CdSe nanowires. Journal of Materials Science, 2013, 48, 4983-4988.	3.7	4
93	Selectivity boost in partial hydrogenation of acetylene via atomic dispersion of platinum over ceria. Catalysis Science and Technology, 2020, 10, 7471-7475.	4.1	4
94	A one-pot route to stable Pickering emulsions featuring nanocrystalline Ag and Au. Chemical Communications, 2020, 56, 4801-4803.	4.1	4
95	SiO ₂ Patterned Based Substrates Implemented in Cu(In,Ga)Se ₂ Ultrathin Solar Cells: Optimum Thickness. IEEE Journal of Photovoltaics, 2022, 12, 954-961.	2.5	4
96	Advanced Electron Microscopy Techniques Toward the Understanding of Metal Nanoparticles and Clusters. , 2018, , 219-287.		3
97	Extrinsic room-temperature ferromagnetism in MoS ₂ . Journal of Materials Science, 2021, 56, 9692-9701.	3.7	3
98	Atomic-Scale Interface Modification Improves the Performance of Cu(In _x Ga _{1-x})Se ₂ /Zn(O,S) Heterojunction Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 44207-44213.	8.0	3
99	Advanced Methods of Electron Microscopy in Catalysis Research. Advances in Imaging and Electron Physics, 2013, , 279-342.	0.2	2
100	Stable Ruthenium colloids by laser ablation. , 2015, , .		2
101	Mesoporous Shell@Macroporous Core Aluminosilicates as Sustainable Nanocatalysts for Direct N-alkylation of Amines. ChemNanoMat, 2018, 4, 537-541.	2.8	2
102	Co ₃ O ₄ CoP Core-Shell Nanoparticles with Enhanced Electrocatalytic Water Oxidation Performance. ACS Applied Nano Materials, 2022, 5, 9150-9158.	5.0	2
103	Insights into the Structure of MoS ₂ /WS ₂ Nanomaterial Catalysts as Revealed by Aberration Corrected STEM. Microscopy and Microanalysis, 2012, 18, 65-66.	0.4	1
104	Capillary Imbibition of Gadolinium Halides into WS ₂ Nanotubes: a Molecular Dynamics View. Israel Journal of Chemistry, 2017, 57, 501-508.	2.3	1
105	In-Situ Atomic-Scale Observation of Intermediate Pathways of Melting and Crystallization of Supported Bi-Nanoparticles in the TEM. Microscopy and Microanalysis, 2018, 24, 1654-1655.	0.4	0
106	Direct Atomic-Scale Observation of Droplets Coalescence Driven Nucleation and Growth of Supported Bismuth Nanocrystal in the TEM. Microscopy and Microanalysis, 2018, 24, 1702-1703.	0.4	0
107	Photoluminescence spectra and ferromagnetic properties of GaMnN nanowires. World Scientific Series in 20th Century Chemistry, 2003, , 355-359.	0.0	0
108	A Rapid Microwave Synthesis at Low Temperatures, Electron Microscopy and Raman Study of MoO ₃ and WO ₃ Nanostructures. Journal of Advanced Microscopy Research, 2010, 5, 16-25.	0.3	0