D K Aswal

List of Publications by Year
in descending order

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122	2,341	236925	233421
papers	citations	25	45
		h-index	g-index

123	123	123	3152
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Self assembled monolayers on silicon for molecular electronics. Analytica Chimica Acta, 2006, 568, 84-108.	5.4	450
2	Improved thermoelectric performance of hot pressed nanostructured n-type SiGe bulk alloys. Journal of Materials Chemistry A, 2014, 2, 6922.	10.3	145
3	Simple and low-temperature polyaniline-based flexible ammonia sensor: a step towards laboratory synthesis to economical device design. Journal of Materials Chemistry C, 2015, 3, 9461-9468.	5.5	130
4	CuCrSe2: a high performance phonon glass and electron crystal thermoelectric material. Journal of Materials Chemistry A, 2013, 1, 11289.	10.3	85
5	High thermoelectric performance of (AgCrSe₂)_{0.5}(CuCrSe₂)_{0.5}nano-composites having all-scale natural hierarchical architectures. Journal of Materials Chemistry A, 2014, 2, 17122-17129.	10.3	82
6	Development of low resistance electrical contacts for thermoelectric devices based on n-type PbTe and p-type TAGS-85 ((AgSbTe₂)_{0.15}(GeTe)_{0.85}). Journal Physics D: Applied Physics, 2009, 42, 015502.	2.8	73
7	Quality Infrastructure of India and Its Importance for Inclusive National Growth. Mapan - Journal of Metrology Society of India, 2020, 35, 139-150.	1.5	62
8	Enhanced NO2 selectivity of hybrid poly(3-hexylthiophene): ZnO-nanowire thin films. Applied Physics Letters, 2007, 90, 043516.	3.3	61
9	ZnO-nanowires modified polypyrrole films as highly selective and sensitive chlorine sensors. Applied Physics Letters, 2009, 94, .	3.3	54
10	Interfacial synthesis of long polyindole fibers. Journal of Applied Polymer Science, 2007, 103, 595-599.	2.6	51
11	Enhanced visible light induced photocatalytic activity on the degradation of organic pollutants by SnO nanoparticle decorated hierarchical ZnO nanostructures. RSC Advances, 2016, 6, 89721-89731.	3.6	42
12	Challenges in Sensors Technology for Industry 4.0 for Futuristic Metrological Applications. Mapan - Journal of Metrology Society of India, 2021, 36, 215-226.	1.5	42
13	Synergetic effect of CuS@ZnS nanostructures on photocatalytic degradation of organic pollutant under visible light irradiation. RSC Advances, 2017, 7, 34366-34375.	3.6	40
14	Bending stress induced improved chemiresistive gas sensing characteristics of flexible cobalt-phthalocyanine thin films. Applied Physics Letters, 2013, 102, .	3.3	38
15	High magnetoresistance and low coercivity in electrodeposited Coâˆ•Cu granular multilayers. Applied Physics Letters, 2006, 89, 132507.	3.3	36
16	Nanostructured polypyrrole: enhancement in thermoelectric figure of merit through suppression of thermal conductivity. Materials Research Express, 2017, 4, 085007.	1.6	34
17	Oxygen Reduction Reaction Activity of Microwave Mediated Solvothermal Synthesized CeO2/g-C3N4 Nanocomposite. Frontiers in Chemistry, 2019, 7, 403.	3.6	34
18	Redefined SI Units and Their Implications. Mapan - Journal of Metrology Society of India, 2020, 35, 1-9.	1.5	34

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19	Evolution of Measurement System and SI Units in India. Mapan - Journal of Metrology Society of India, 2020, 35, 475-490.	1.5	32
20	Room temperature ppb level Cl2 sensing using sulphonated copper phthalocyanine films. Talanta, 2010, 82, 1485-1489.	5.5	31
21	Effect of the crystallinity of silver nanoparticles on surface plasmon resonance induced enhancement of effective absorption cross-section of dyes. Journal of Applied Physics, 2015, 117, .	2.5	30
22	CNTs based improved chlorine sensor from non-covalently anchored multi-walled carbon nanotubes with hexa-decafluorinated cobalt phthalocyanines. RSC Advances, 2017, 7, 49675-49683.	3.6	30
23	Bias and temperature dependent charge transport in high mobility cobalt-phthalocyanine thin films. Applied Physics Letters, 2010, 96, .	3.3	29
24	Efficiency enhancement in dye sensitized solar cells through co-sensitization of TiO2 nanocrystalline electrodes. Applied Physics Letters, 2012, 100, .	3.3	29
25	Phthalocyanine based nanowires and nanoflowers as highly sensitive room temperature Cl₂sensors. RSC Advances, 2014, 4, 15945.	3.6	27
26	Nano ceria supported nitrogen doped graphene as a highly stable and methanol tolerant electrocatalyst for oxygen reduction. RSC Advances, 2016, 6, 77100-77104.	3.6	27
27	Low temperature thermoelectric properties of Cu intercalated TiSe2: a charge density wave material. Applied Physics A: Materials Science and Processing, 2013, 111, 465-470.	2.3	24
28	Fabrication of plasmonic dye-sensitized solar cells using ion-implanted photoanodes. RSC Advances, 2019, 9, 20375-20384.	3.6	24
29	Oxygen induced hysteretic current-voltage characteristics of iron-phthalocyanine thin films. Journal of Applied Physics, 2008, 104, .	2.5	21
30	Enhanced Thermoelectric Properties of Selenium-Deficient Layered TiSe_{2â€“x}: A Charge-Density-Wave Material. ACS Applied Materials & Interfaces, 2014, 6, 18619-18625.	8.0	21
31	Broadband enhancement in absorption cross-section of N719 dye using different anisotropic shaped single crystalline silver nanoparticles. RSC Advances, 2016, 6, 48064-48071.	3.6	20
32	Organic Devices: Fabrication, Applications, and Challenges. Journal of Electronic Materials, 2022, 51, 447-485.	2.2	20
33	Role of interfaces on the direct tunneling and the inelastic tunneling behaviors through metal/alkylsilane/silicon junctions. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 1464-1469.	1.8	19
34	Room temperature detection of amine vapours using copper phthalocyanine based thin films. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1245-1250.	1.8	19
35	Reinforcement of nanostructured reduced graphene oxide: a facile approach to develop high-performance nanocomposite ultrafiltration membranes minimizing the trade-off between flux and selectivity. RSC Advances, 2015, 5, 46801-46816.	3.6	19
36	Role of National Pressure and Vacuum Metrology in Indian Industrial Growth and Their Global Metrological Equivalence. Mapan - Journal of Metrology Society of India, 2018, 33, 347-359.	1.5	19

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37	Thermoelectric performance of Cu intercalated layered TiSe2 above 300â€‰K. Journal of Applied Physics, 2013, 114, .	2.5	17
38	Study of thermal stability of Cu2Se thermoelectric material. AIP Conference Proceedings, 2016, , .	0.4	17
39	Electrochemical grafting of octyltrichlorosilane monolayer on Si. Applied Physics Letters, 2007, 90, 113118.	3.3	16
40	Charge transport in polypyrrole:ZnO-nanowires composite films. Applied Physics Letters, 2009, 95, 202106.	3.3	16
41	75th Foundation Day of CSIR-National Physical Laboratory: Celebration of Achievements in Metrology for National Growth. Mapan - Journal of Metrology Society of India, 2021, 36, 1-32.	1.5	16
42	Preparation of adherent Y-Ba-Cu-O thick films and the effect of silver doping. Superconductor Science and Technology, 1991, 4, 188-191.	3.5	14
43	Improved Thermoelectric Properties of Se-Doped n-Type PbTe1â^'x Se x (0Ââ‰ÂxÂâ‰Â1). Journal of Electronic Materials, 2013, 42, 2292-2296.	2.2	14
44	Tailoring of the chlorine sensing properties of substituted metal phthalocyanines non-covalently anchored on single-walled carbon nanotubes. RSC Advances, 2018, 8, 32719-32730.	3.6	14
45	Remarkable Improvement of Thermoelectric Figure-of-Merit in SnTe through In Situ-Created Te Nanoinclusions. ACS Applied Energy Materials, 2020, 3, 7113-7120.	5.1	14
46	Metallic-like conduction in Co-phthalocyanine/Fe-phthalocyanine composite films grown on sapphire substrates. Applied Physics Letters, 2011, 99, .	3.3	12
47	Greatly enhanced H₂S sensitivity using defect-rich titanium oxide films. RSC Advances, 2015, 5, 93081-93088.	3.6	12
48	Change in the Affinity of Ethylene Glycol Methacrylate Phosphate Monomer and Its Polymer Anchored on a Graphene Oxide Platform toward Uranium(VI) and Plutonium(IV) Ions. Journal of Physical Chemistry B, 2016, 120, 2942-2950.	2.6	12
49	Characterization of YBa2Cu3O7- deltasingle crystals grown from charges containing silver nitrate. Superconductor Science and Technology, 1995, 8, 710-717.	3.5	11
50	Resistive memory effect in selfâ€assembled 3â€aminopropyltrimethoxysilane molecular multilayers. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 373-377.	1.8	11
51	Graphene composite for improvement in the conversion efficiency of flexible poly 3-hexyl-thiophene:[6,6]-phenyl C71 butyric acid methyl ester polymer solar cells. Applied Physics Letters, 2014, 104, .	3.3	11
52	Improved charge conduction in cobalt-phthalocyanine thin films grown along 36.8Â° boundary of SrTiO3 bicrystals. Applied Physics Letters, 2011, 98, .	3.3	9
53	Fluorinated copper-phthalocyanine/cobalt-phthalocyaine organic heterojunctions: Charge transport and Kelvin probe studies. Applied Physics Letters, 2012, 100, .	3.3	9
54	Dielectric spectroscopic studies of boron subphthalocyanine chloride thin films. Electronic Materials Letters, 2013, 9, 101-106.	2.2	9

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55	Investigation on the effects of thermal annealing on PCDTBT:PCBM bulk-heterojunction polymer solar cells. AIP Conference Proceedings, 2013, , .	0.4	8
56	Structural and Magnetic Depth Profiling and Their Correlation in Self-Assembled Co and Fe Based Phthalocyanine Thin Films. Journal of Physical Chemistry C, 2014, 118, 4072-4077.	3.1	8
57	Quality Management System at NPLI: Transition of ISO/IEC 17025 From 2005 to 2017 and Implementation of ISO 17034: 2016. Mapan - Journal of Metrology Society of India, 2021, 36, 657-668.	1.5	8
58	Oxygen diffusion in silver-free and silver-doped single crystals. Superconductor Science and Technology, 1998, 11, 631-636.	3.5	7
59	Interfacial charge trapping in the polymer solar cells and its elimination by solvent annealing. AIP Advances, 2016, 6, 095012.	1.3	7
60	Anisotropic charge transport properties in boron sub phthalocyanine chloride thin films. Journal of Applied Physics, 2017, 121, 095501.	2.5	7
61	Band Convergence and Phonon Scattering Mediated Improved Thermoelectric Performance of SnTeâ€“PbTe Nanocomposites. ACS Applied Energy Materials, 2020, 3, 8882-8891.	5.1	7
62	Effect of Na2O/K2O substitution on thermophysical properties of PbO based phosphate glasses. Journal of Thermal Analysis and Calorimetry, 2007, 89, 153-157.	3.6	6
63	In-plane and out-of-plane anisotropic magnetoresistances in La1 â^'xPbxMnO3thin films. Philosophical Magazine, 2003, 83, 3181-3191.	1.6	5
64	Electrical Characterization of Self-Assembled Monolayers of Alkyltrichlorosilanes on Native Oxide of Silicon. Journal of Nanoscience and Nanotechnology, 2009, 9, 5273-5277.	0.9	5
65	Effect of Te doping on the thermopower of PbSe_{1â€“x}Te_x. Emerging Materials Research, 2012, 1, 306-311.	0.7	5
66	H2S sensing properties of R.F. sputtered NiO thin films. AIP Conference Proceedings, 2014, , .	0.4	5
67	Thermoelectric performance of layered Sr_xTiSe₂above 300â€‰K. Journal of Physics Condensed Matter, 2014, 26, 445002.	1.8	5
68	Physico-Mechanical Metrology. , 2020, , 377-456.		5
69	Postâ€deposition annealing and crystallisation of Y-Ba-Cu-O thin films deposited on polycrystalline substrates. Phase Transitions, 1989, 19, 127-137.	1.3	4
70	Thickness dependent morphology and resistivity of ultra-thin Al films grown on Si(111) by molecular beam epitaxy. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 1254-1258.	1.8	4
71	Photovoltaic Properties Of ZnO Nanoparticle Based Solid Polymeric Photoelectrochemical Cells. , 2010, , .		4
72	Substituted copper phthalocyanine/multiwalled carbon nanotubes hybrid material for Cl2 sensing application. , 2014, , .		4

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73	Contributions of National Standards on the growth of Barometric Pressure and Vacuum Industries. Mapan - Journal of Metrology Society of India, 2019, 34, 13-17.	1.5	4
74	Influence of Fabrication Processes on Transport Properties of Superconducting Niobium Nitride Nanowires. Current Science, 2018, 114, 1443.	0.8	4
75	Study of iron phthalocyanine organic semiconductor thin films using slow positron beam. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2589-2591.	0.8	3
76	Kelvin probe studies of H[sub 2]S exposed CuO:ZnO nanowires random networks. AIP Conference Proceedings, 2013, , .	0.4	3
77	Substituted zinc phthalocyanine based nanowires for room temperature ppb level Cl2 sensing application. AIP Conference Proceedings, 2014, , .	0.4	3
78	Thermoelectric properties of Ag added Ca0.98La0.02MnO3. , 2014, , .		3
79	Electron Beam Induced Tailoring of Electrical Characteristics of Organic Semiconductor Films. Chemistry Africa, 2020, 3, 571-592.	2.4	3
80	Human Resources in Metrology for Skill India. , 2020, , 985-1028.		3
81	â€˜Constitution of Indiaâ€™:Preservation of original. Current Science, 2018, 115, 788.	0.8	3
82	ZnO Nanowires As H[sub 2]S Sensor. AIP Conference Proceedings, 2010, , .	0.4	2
83	Effect of Co-sensitization and acid treatment on TiO[sub 2] photoanodes in dye-sensitized solar cells. , 2013, , .		2
84	Ferroeletric like characteristics in redox active polymer of 5,10,15,20 tetra(4-hydroxyphenyl)-porphyrin at room temperature. Applied Physics Letters, 2013, 103, 033302.	3.3	2
85	Poly(2,7-carbazole) derivative based air stable and flexible organic field effect transistor. , 2013, , .		2
86	Probing gas response of pure and Au modified ZnO nanowires network using work function measurements. AIP Conference Proceedings, 2013, , .	0.4	2
87	Efficiency enhancement in PCDTBT:PCBM solar cells using graphene nanosheets. AIP Conference Proceedings, 2015, , .	0.4	2
88	Improvement in thermoelectric power factor of mechanically alloyed p-type SiGe by incorporation of TiB2. AIP Conference Proceedings, 2016, , .	0.4	2
89	Zinc phthalocyanine nanowires based flexible sensor for room temperature Cl2 detection. AIP Conference Proceedings, 2018, , .	0.4	2
90	Improving the Thermoelectric Performance of Tetrahedrally Bonded Quaternary Selenide Cu2CdSnSe4 Using CdSe Precipitates. Journal of Electronic Materials, 2019, 48, 2120-2130.	2.2	2

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91	Biomedical Metrology: Role in Nationâ€™s Healthcare Sector. , 2020, , 731-766.		2
92	Compositional variations in the bulk of YBa2Cu3Ox thick films. Journal of Materials Science, 1993, 28, 415-422.	3.7	1
93	Colossal magnetoresistance in layered manganite Nd2â^'2x Sr1+2x Mn2O7 (0 â‰¤ x â‰¤ 0.5). Pramana - Journal of Physics, 2002, 58, 1085-1088.	1.8	1
94	Molecular Beam Epitaxy Growth of Iron Phthalocyanine Nanostructures. , 2009, , .		1
95	Charge transport in ultrathin iron-phthalocyanine thin films under high electric fields. Journal of Physics Condensed Matter, 2011, 23, 355801.	1.8	1
96	EFFECT OF GATE INSULATOR ON THE PERFORMANCE OF COPPER PHTHALOCYANINE-BASED ORGANIC THIN FILM TRANSISTORS. International Journal of Nanoscience, 2011, 10, 745-748.	0.7	1
97	Metalâ€“semiconductor transition in ultrathin cobalt-phthalocyanine films grown on SrTiO3single crystal substrates. Applied Physics Letters, 2012, 100, 162101.	3.3	1
98	Evaluation of compatibility of SnO<inf>2</inf>: CuO thin film based H<inf>2</inf>S sensor on LTCC substrates. , 2012, , .		1
99	Improved efficiency of organic dye sensitized solar cells through acid treatment. , 2013, , .		1
100	Thermal transport properties of strontium intercalated titanium diselenide. , 2013, , .		1
101	Solution processed CuPc based nanowires for room temperature Cl[sub 2] gas sensing applications. , 2013, , .		1
102	Effect of sensitizers on H<inf>2</inf>S sensing properties of ZnO nanowires. , 2013, , .		1
103	H[sub 2]S sensing properties of RF sputtered SnO[sub 2] films. , 2013, , .		1
104	Enhanced figure of merit in (AgCrSe[sub 2])[sub 0.75](CuCrSe[sub 2])[sub 0.25]. AIP Conference Proceedings, 2013, , .	0.4	1
105	Conducting polymers based counter electrodes for dye-sensitized solar cells. , 2014, , .		1
106	Cobalt phthalocyanine/ZnO nanowire heterojunction film for H2S sensor. AIP Conference Proceedings, 2015, , .	0.4	1
107	WO3 thin film based multiple sensor array for electronic nose application. AIP Conference Proceedings, 2015, , .	0.4	1
108	Effect of silver addition on thermoelectric properties of half-doped rare-earth manganite. AIP Conference Proceedings, 2016, , .	0.4	1

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109	Time and Frequency Metrology. , 2020, , 145-195.		1
110	Time and Frequency Metrology. , 2020, , 197-236.		1
111	Anomalous temperature dependence of resistance observed for high T_C Y-Ba-Cu-O thin films. Phase Transitions, 1989, 18, 125-130.	1.3	0
112	A Simple Photoelectrochemical Cell Using Fe[sup +++]âˆ•Fe[sup ++](aq) As Redox Couple. , 2010, , .		0
113	Charge Transport Characteristics Of Cobalt Phthalocyanine Thin Films Grown By Molecular Beam Epitaxy. , 2010, , .		0
114	Organic semiconductors for nano- and macro-electronics: Status and promises. , 2012, , .		0
115	Negative differential resistance in freestanding polypyrrole films formed by interface polymerization. , 2012, , .		0
116	H<inf>2</inf>S sensing properties of RGTO grown SnO<inf>2</inf> films. , 2012, , .		0
117	Chemi-resistive gas sensing properties of cobalt-phthalocyanine / iron-phthalocyanine composite films. , 2012, , .		0
118	NH3 sensing characteristics of pure and Al modified WO<inf>3</inf> thin films. , 2013, , .		0
119	Improvement of room temperature ppb level Cl[sub 2] sensing characteristics of copper phthalocyanine film. , 2013, , .		0
120	Room temperature NH<inf>3</inf> sensing properties of Co-B-PANI nanocomposite films. , 2015, , .		0
121	Synthesis & tailoring the thermal conductivity of Sr doped Bi2Se3 thermoelectric material. AIP Conference Proceedings, 2017, , .	0.4	0
122	Electromagnetic Metrology for Smart Technologies. , 2020, , 523-575.		0