

# D K Aswal

## List of Publications by Year in descending order

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122  
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docs citations

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times ranked

3152  
citing authors

#	ARTICLE	IF	CITATIONS
1	Organic Devices: Fabrication, Applications, and Challenges. Journal of Electronic Materials, 2022, 51, 447-485.	2.2	20
2	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
3	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
4	Quality Management System at NPL: 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
5	Evolution of Measurement System and SI Units in India. Mapan - Journal of Metrology Society of India, 2020, 35, 475-490.	1.5	32
6	Band Convergence and Phonon Scattering Mediated Improved Thermoelectric Performance of SnTe/PbTe Nanocomposites. ACS Applied Energy Materials, 2020, 3, 8882-8891.	5.1	7
7	Electron Beam Induced Tailoring of Electrical Characteristics of Organic Semiconductor Films. Chemistry Africa, 2020, 3, 571-592.	2.4	3
8	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
9	Remarkable Improvement of Thermoelectric Figure-of-Merit in SnTe through In Situ-Created Te Nano-inclusions. ACS Applied Energy Materials, 2020, 3, 7113-7120.	5.1	14
10	Redefined SI Units and Their Implications. Mapan - Journal of Metrology Society of India, 2020, 35, 1-9.	1.5	34
11	Biomedical Metrology: Role in Nation's Healthcare Sector. , 2020, , 731-766.		2
12	Human Resources in Metrology for Skill India. , 2020, , 985-1028.		3
13	Time and Frequency Metrology. , 2020, , 145-195.		1
14	Time and Frequency Metrology. , 2020, , 197-236.		1
15	Physico-Mechanical Metrology. , 2020, , 377-456.		5
16	Electromagnetic Metrology for Smart Technologies. , 2020, , 523-575.		0
17	Fabrication of plasmonic dye-sensitized solar cells using ion-implanted photoanodes. RSC Advances, 2019, 9, 20375-20384.	3.6	24
18	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

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19	Oxygen Reduction Reaction Activity of Microwave Mediated Solvothermal Synthesized CeO <sub>2</sub> /g-C <sub>3</sub> N <sub>4</sub> Nanocomposite. <i>Frontiers in Chemistry</i> , 2019, 7, 403.	3.6	34
20	Improving the Thermoelectric Performance of Tetrahedrally Bonded Quaternary Selenide Cu <sub>2</sub> CdSnSe <sub>4</sub> Using CdSe Precipitates. <i>Journal of Electronic Materials</i> , 2019, 48, 2120-2130.	2.2	2
21	Zinc phthalocyanine nanowires based flexible sensor for room temperature Cl <sub>2</sub> detection. <i>AIP Conference Proceedings</i> , 2018, , .	0.4	2
22	Tailoring of the chlorine sensing properties of substituted metal phthalocyanines non-covalently anchored on single-walled carbon nanotubes. <i>RSC Advances</i> , 2018, 8, 32719-32730.	3.6	14
23	Role of National Pressure and Vacuum Metrology in Indian Industrial Growth and Their Global Metrological Equivalence. <i>Mapan - Journal of Metrology Society of India</i> , 2018, 33, 347-359.	1.5	19
24	Influence of Fabrication Processes on Transport Properties of Superconducting Niobium Nitride Nanowires. <i>Current Science</i> , 2018, 114, 1443.	0.8	4
25	â€ˆConstitution of Indiaâ€™: Preservation of original. <i>Current Science</i> , 2018, 115, 788.	0.8	3
26	Anisotropic charge transport properties in boron sub phthalocyanine chloride thin films. <i>Journal of Applied Physics</i> , 2017, 121, 095501.	2.5	7
27	Nanostructured polypyrrole: enhancement in thermoelectric figure of merit through suppression of thermal conductivity. <i>Materials Research Express</i> , 2017, 4, 085007.	1.6	34
28	Synthesis & tailoring the thermal conductivity of Sr doped Bi <sub>2</sub> Se <sub>3</sub> thermoelectric material. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	0
29	CNTs based improved chlorine sensor from non-covalently anchored multi-walled carbon nanotubes with hexa-decafluorinated cobalt phthalocyanines. <i>RSC Advances</i> , 2017, 7, 49675-49683.	3.6	30
30	Synergetic effect of CuS@ZnS nanostructures on photocatalytic degradation of organic pollutant under visible light irradiation. <i>RSC Advances</i> , 2017, 7, 34366-34375.	3.6	40
31	Study of thermal stability of Cu <sub>2</sub> Se thermoelectric material. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	17
32	Improvement in thermoelectric power factor of mechanically alloyed p-type SiGe by incorporation of TiB <sub>2</sub> . <i>AIP Conference Proceedings</i> , 2016, , .	0.4	2
33	Effect of silver addition on thermoelectric properties of half-doped rare-earth manganite. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	1
34	Interfacial charge trapping in the polymer solar cells and its elimination by solvent annealing. <i>AIP Advances</i> , 2016, 6, 095012.	1.3	7
35	Broadband enhancement in absorption cross-section of N719 dye using different anisotropic shaped single crystalline silver nanoparticles. <i>RSC Advances</i> , 2016, 6, 48064-48071.	3.6	20
36	Nano ceria supported nitrogen doped graphene as a highly stable and methanol tolerant electrocatalyst for oxygen reduction. <i>RSC Advances</i> , 2016, 6, 77100-77104.	3.6	27

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37	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
38	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
39	Cobalt phthalocyanine/ZnO nanowire heterojunction film for H <sub>2</sub> S sensor. AIP Conference Proceedings, 2015, , .	0.4	1
40	WO <sub>3</sub> thin film based multiple sensor array for electronic nose application. AIP Conference Proceedings, 2015, , .	0.4	1
41	Efficiency enhancement in PCDTBT:PCBM solar cells using graphene nanosheets. AIP Conference Proceedings, 2015, , .	0.4	2
42	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
43	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
44	Room temperature NH <sub>3</sub> sensing properties of Co-B-PANI nanocomposite films. , 2015, , .		0
45	Greatly enhanced H <sub>2</sub> S sensitivity using defect-rich titanium oxide films. RSC Advances, 2015, 5, 93081-93088.	3.6	12
46	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
47	Substituted zinc phthalocyanine based nanowires for room temperature ppb level Cl <sub>2</sub> sensing application. AIP Conference Proceedings, 2014, , .	0.4	3
48	Substituted copper phthalocyanine/multiwalled carbon nanotubes hybrid material for Cl <sub>2</sub> sensing application. , 2014, , .		4
49	Conducting polymers based counter electrodes for dye-sensitized solar cells. , 2014, , .		1
50	H <sub>2</sub> S sensing properties of R.F. sputtered NiO thin films. AIP Conference Proceedings, 2014, , .	0.4	5
51	Thermoelectric properties of Ag added Ca <sub>0.98</sub> La <sub>0.02</sub> MnO <sub>3</sub> . , 2014, , .		3
52	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
53	High thermoelectric performance of (AgCrSe <sub>2</sub> ) <sub>0.5</sub> (CuCrSe <sub>2</sub> ) <sub>0.5</sub> nano-composites having all-scale natural hierarchical architectures. Journal of Materials Chemistry A, 2014, 2, 17122-17129.	10.3	82
54	Phthalocyanine based nanowires and nanoflowers as highly sensitive room temperature Cl <sub>2</sub> sensors. RSC Advances, 2014, 4, 15945.	3.6	27

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55	Enhanced Thermoelectric Properties of Selenium-Deficient Layered $\text{TiSe}_2$ : A Charge-Density-Wave Material. ACS Applied Materials & Interfaces, 2014, 6, 18619-18625.	8.0	21
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	Thermoelectric performance of layered $\text{SrTiSe}_2$ above 300 K. Journal of Physics Condensed Matter, 2014, 26, 445002.	1.8	5
58	Improved thermoelectric performance of hot pressed nanostructured n-type SiGe bulk alloys. Journal of Materials Chemistry A, 2014, 2, 6922.	10.3	145
59	Improved Thermoelectric Properties of Se-Doped n-Type $\text{PbTe}_{1-x}\text{Se}_x$ ( $0 \leq x \leq 1$ ). Journal of Electronic Materials, 2013, 42, 2292-2296.	2.2	14
60	Bending stress induced improved chemiresistive gas sensing characteristics of flexible cobalt-phthalocyanine thin films. Applied Physics Letters, 2013, 102, .	3.3	38
61	$\text{CuCrSe}_2$ : a high performance phonon glass and electron crystal thermoelectric material. Journal of Materials Chemistry A, 2013, 1, 11289.	10.3	85
62	Dielectric spectroscopic studies of boron subphthalocyanine chloride thin films. Electronic Materials Letters, 2013, 9, 101-106.	2.2	9
63	Low temperature thermoelectric properties of Cu intercalated $\text{TiSe}_2$ : a charge density wave material. Applied Physics A: Materials Science and Processing, 2013, 111, 465-470.	2.3	24
64	Effect of Co-sensitization and acid treatment on $\text{TiO}_2$ photoanodes in dye-sensitized solar cells. , 2013, , .		2
65	Improved efficiency of organic dye sensitized solar cells through acid treatment. , 2013, , .		1
66	Thermal transport properties of strontium intercalated titanium diselenide. , 2013, , .		1
67	Solution processed CuPc based nanowires for room temperature $\text{Cl}_2$ gas sensing applications. , 2013, , .		1
68	Ferroelectric 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
69	Effect of sensitizers on H <sub>2</sub> S sensing properties of ZnO nanowires. , 2013, , .		1
70	NH <sub>3</sub> sensing characteristics of pure and Al modified $\text{WO}_3$ thin films. , 2013, , .		0
71	Thermoelectric performance of Cu intercalated layered $\text{TiSe}_2$ above 300 K. Journal of Applied Physics, 2013, 114, .	2.5	17
72	Improvement of room temperature ppb level $\text{Cl}_2$ sensing characteristics of copper phthalocyanine film. , 2013, , .		0

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73	Poly(2,7-carbazole) derivative based air stable and flexible organic field effect transistor. , 2013, , .		2
74	H <sub>2</sub> S sensing properties of RF sputtered SnO <sub>2</sub> films. , 2013, , .		1
75	Enhanced figure of merit in (AgCrSe <sub>2</sub> ) <sub>0.75</sub> (CuCrSe <sub>2</sub> ) <sub>0.25</sub> . AIP Conference Proceedings, 2013, , .	0.4	1
76	Investigation on the effects of thermal annealing on PCDTBT:PCBM bulk-heterojunction polymer solar cells. AIP Conference Proceedings, 2013, , .	0.4	8
77	Kelvin probe studies of H <sub>2</sub> S exposed CuO:ZnO nanowires random networks. AIP Conference Proceedings, 2013, , .	0.4	3
78	Probing gas response of pure and Au modified ZnO nanowires network using work function measurements. AIP Conference Proceedings, 2013, , .	0.4	2
79	Organic semiconductors for nano- and macro-electronics: Status and promises. , 2012, , .		0
80	Metal-semiconductor transition in ultrathin cobalt-phthalocyanine films grown on SrTiO <sub>3</sub> single crystal substrates. Applied Physics Letters, 2012, 100, 162101.	3.3	1
81	Effect of Te doping on the thermopower of PbSe <sub>1-x</sub> Te <sub>x</sub> . Emerging Materials Research, 2012, 1, 306-311.	0.7	5
82	Fluorinated copper-phthalocyanine/cobalt-phthalocyanine organic heterojunctions: Charge transport and Kelvin probe studies. Applied Physics Letters, 2012, 100, .	3.3	9
83	Negative differential resistance in freestanding polypyrrole films formed by interface polymerization. , 2012, , .		0
84	Evaluation of compatibility of SnO <sub>2</sub> :CuO thin film based H <sub>2</sub> S sensor on LTCC substrates. , 2012, , .		1
85	H <sub>2</sub> S sensing properties of RGTO grown SnO <sub>2</sub> films. , 2012, , .		0
86	Chemi-resistive gas sensing properties of cobalt-phthalocyanine / iron-phthalocyanine composite films. , 2012, , .		0
87	Efficiency enhancement in dye sensitized solar cells through co-sensitization of TiO <sub>2</sub> nanocrystalline electrodes. Applied Physics Letters, 2012, 100, .	3.3	29
88	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
89	Metallic-like conduction in Co-phthalocyanine/Fe-phthalocyanine composite films grown on sapphire substrates. Applied Physics Letters, 2011, 99, .	3.3	12
90	Charge transport in ultrathin iron-phthalocyanine thin films under high electric fields. Journal of Physics Condensed Matter, 2011, 23, 355801.	1.8	1

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91	Improved charge conduction in cobalt-phthalocyanine thin films grown along 36.8° boundary of SrTiO <sub>3</sub> bicrystals. Applied Physics Letters, 2011, 98, .	3.3	9
92	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
93	Bias and temperature dependent charge transport in high mobility cobalt-phthalocyanine thin films. Applied Physics Letters, 2010, 96, .	3.3	29
94	A Simple Photoelectrochemical Cell Using Fe <sup>+++</sup> •Fe <sup>++</sup> (aq) As Redox Couple. , 2010, , .		0
95	Charge Transport Characteristics Of Cobalt Phthalocyanine Thin Films Grown By Molecular Beam Epitaxy. , 2010, , .		0
96	ZnO Nanowires As H <sub>2</sub> S Sensor. AIP Conference Proceedings, 2010, , .	0.4	2
97	Photovoltaic Properties Of ZnO Nanoparticle Based Solid Polymeric Photoelectrochemical Cells. , 2010, , .		4
98	Room temperature ppb level Cl <sub>2</sub> sensing using sulphonated copper phthalocyanine films. Talanta, 2010, 82, 1485-1489.	5.5	31
99	Charge transport in polypyrrole:ZnO-nanowires composite films. Applied Physics Letters, 2009, 95, 202106.	3.3	16
100	Development of low resistance electrical contacts for thermoelectric devices based on n-type PbTe and p-type TAGS-85 ((AgSbTe <sub>2</sub> ) <sub>0.15</sub> (GeTe) <sub>0.85</sub> ). Journal Physics D: Applied Physics, 2009, 42, 015502.	2.8	73
101	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
102	ZnO-nanowires modified polypyrrole films as highly selective and sensitive chlorine sensors. Applied Physics Letters, 2009, 94, .	3.3	54
103	Molecular Beam Epitaxy Growth of Iron Phthalocyanine Nanostructures. , 2009, , .		1
104	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
105	Resistive memory effect in self-assembled 3-aminopropyltrimethoxysilane molecular multilayers. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 373-377.	1.8	11
106	Oxygen induced hysteretic current-voltage characteristics of iron-phthalocyanine thin films. Journal of Applied Physics, 2008, 104, .	2.5	21
107	Electrochemical grafting of octyltrichlorosilane monolayer on Si. Applied Physics Letters, 2007, 90, 113118.	3.3	16
108	Enhanced NO <sub>2</sub> selectivity of hybrid poly(3-hexylthiophene): ZnO-nanowire thin films. Applied Physics Letters, 2007, 90, 043516.	3.3	61

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109	Interfacial synthesis of long polyindole fibers. <i>Journal of Applied Polymer Science</i> , 2007, 103, 595-599.	2.6	51
110	Effect of Na <sub>2</sub> O/K <sub>2</sub> O substitution on thermophysical properties of PbO based phosphate glasses. <i>Journal of Thermal Analysis and Calorimetry</i> , 2007, 89, 153-157.	3.6	6
111	Thickness dependent morphology and resistivity of ultra-thin Al films grown on Si(111) by molecular beam epitaxy. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2006, 203, 1254-1258.	1.8	4
112	Role of interfaces on the direct tunneling and the inelastic tunneling behaviors through metal/alkylsilane/silicon junctions. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2006, 203, 1464-1469.	1.8	19
113	Self assembled monolayers on silicon for molecular electronics. <i>Analytica Chimica Acta</i> , 2006, 568, 84-108.	5.4	450
114	High magnetoresistance and low coercivity in electrodeposited Co <sup>2+</sup> /Cu granular multilayers. <i>Applied Physics Letters</i> , 2006, 89, 132507.	3.3	36
115	In-plane and out-of-plane anisotropic magnetoresistances in La <sub>1-x</sub> Pb <sub>x</sub> MnO <sub>3</sub> thin films. <i>Philosophical Magazine</i> , 2003, 83, 3181-3191.	1.6	5
116	Colossal magnetoresistance in layered manganite Nd <sub>2-2x</sub> Sr <sub>1+2x</sub> Mn <sub>2</sub> O <sub>7</sub> (0 ≤ x ≤ 0.5). <i>Pramana - Journal of Physics</i> , 2002, 58, 1085-1088.	1.8	1
117	Oxygen diffusion in silver-free and silver-doped single crystals. <i>Superconductor Science and Technology</i> , 1998, 11, 631-636.	3.5	7
118	Characterization of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-δ</sub> single crystals grown from charges containing silver nitrate. <i>Superconductor Science and Technology</i> , 1995, 8, 710-717.	3.5	11
119	Compositional variations in the bulk of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>x</sub> thick films. <i>Journal of Materials Science</i> , 1993, 28, 415-422.	3.7	1
120	Preparation of adherent Y-Ba-Cu-O thick films and the effect of silver doping. <i>Superconductor Science and Technology</i> , 1991, 4, 188-191.	3.5	14
121	Post-deposition annealing and crystallisation of Y-Ba-Cu-O thin films deposited on polycrystalline substrates. <i>Phase Transitions</i> , 1989, 19, 127-137.	1.3	4
122	Anomalous temperature dependence of resistance observed for high T <sub>C</sub> Y-Ba-Cu-O thin films. <i>Phase Transitions</i> , 1989, 18, 125-130.	1.3	0