

# J Kumar

## List of Publications by Year in descending order

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108  
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1,517  
citations

331670

21  
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414414

32  
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109  
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109  
docs citations

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times ranked

1534  
citing authors

#	ARTICLE	IF	CITATIONS
1	Li doped and undoped ZnO nanocrystalline thin films: a comparative study of structural and optical properties. <i>Journal of Sol-Gel Science and Technology</i> , 2007, 43, 171-177.	2.4	132
2	Micro-Raman scattering spectroscopy study of Li-doped and undoped ZnO needle crystals. <i>Journal of Raman Spectroscopy</i> , 2009, 40, 556-561.	2.5	57
3	Growth and characterization of Bis Thiourea Zinc Acetate (BTZA). <i>Crystal Research and Technology</i> , 2006, 41, 37-40.	1.3	48
4	Study on photoluminescence from tris-(8-hydroxyquinoline)aluminum thin films and influence of light. <i>Applied Physics Letters</i> , 2006, 89, 082106.	3.3	47
5	Raman spectral investigation of thiourea complexes. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2009, 73, 263-267.	3.9	47
6	XRD, XPS, SEM, PL and Raman scattering analysis of synthesised GaN powder. <i>Materials Chemistry and Physics</i> , 2003, 77, 341-345.	4.0	46
7	Cesium doped and undoped ZnO nanocrystalline thin films: a comparative study of structural and micro-Raman investigation of optical phonons. <i>Journal of Raman Spectroscopy</i> , 2010, 41, 1594-1600.	2.5	44
8	Influence of Al dopant on microstructure and optical properties of ZnO thin films prepared by sol-gel spin coating method. <i>Optical Materials</i> , 2007, 30, 314-317.	3.6	39
9	Infrared absorption spectra in bulk Fe-doped InP. <i>Applied Physics Letters</i> , 1990, 56, 638-640.	3.3	35
10	Deposition and characterization of indium oxide and indium tin oxide semiconducting thin films by reactive thermal deposition technique. <i>Journal of Electronic Materials</i> , 1995, 24, 719-724.	2.2	35
11	Influence of post-deposition annealing on the structural, optical and electrical properties of Li and Mg co-doped ZnO thin films deposited by sol-gel technique. <i>Superlattices and Microstructures</i> , 2011, 49, 527-536.	3.1	34
12	Oxidation dependent crystallization behaviour of IO and ITO thin films deposited by reactive thermal deposition technique. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1998, 55, 195-200.	3.5	33
13	Investigations on the structural and optical properties of Li, N and (Li, N) co-doped ZnO thin films prepared by sol-gel technique. <i>Materials Science in Semiconductor Processing</i> , 2010, 13, 46-50.	4.0	28
14	Low energy proton irradiation induced interface defects on Pd/n-GaAs Schottky diodes and its characteristics. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1998, 140, 119-123.	1.4	26
15	Electrical characterisation of high energy 12C irradiated Au/n-GaAs Schottky Barrier Diodes. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1999, 156, 110-115.	1.4	26
16	Influence of particle size on the phonon confinement of TiO <sub>2</sub> nanoparticles. <i>Journal of Experimental Nanoscience</i> , 2014, 9, 661-668.	2.4	26
17	Investigations on the effect of alpha particle irradiation-induced defects near Pd/n-GaAs interface. <i>Vacuum</i> , 2000, 57, 51-59.	3.5	25
18	Studies on influence of light on fluorescence of Tris-(8-hydroxyquinoline)aluminum thin films. <i>Applied Surface Science</i> , 2009, 255, 5760-5763.	6.1	24

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19	Microhardness studies of doped and undoped InP crystals. Journal of Materials Science Letters, 1991, 10, 559-561.	0.5	22
20	Structural studies on synthesised gallium nitride. Journal of Crystal Growth, 2000, 211, 184-188.	1.5	22
21	Observation of a 0.7eV electron trap in dilute GaAsN layers grown by liquid phase epitaxy. Applied Physics Letters, 2004, 85, 964-966.	3.3	22
22	Investigations on the vibrational spectroscopy and on the thermal behaviour of bis-thiourea zinc acetate (BTZA). Physica B: Condensed Matter, 2006, 371, 1-4.	2.7	20
23	Theoretical investigations on ZnCdO <sub>2</sub> and ZnMgO <sub>2</sub> alloys: A first principle study. Solid State Communications, 2006, 137, 507-511.	1.9	20
24	Effect of Fe substitution on the electronic structure, magnetic and thermoelectric properties of Co <sub>2</sub> FeSi full Heusler alloy: A first principle study. Computational Materials Science, 2015, 109, 34-40.	3.0	20
25	Effect of swift heavy ions of silver and oxygen on GaN. Nuclear Instruments & Methods in Physics Research B, 2006, 244, 145-148.	1.4	19
26	Investigations on the 100 MeV Au <sup>7+</sup> ion irradiation of GaN. Semiconductor Science and Technology, 2007, 22, 511-516.	2.0	19
27	On the enhancement of effective barrier height in Schottky barrier diodes. Nuclear Instruments & Methods in Physics Research B, 1996, 119, 519-522.	1.4	18
28	Growth of dilute GaSbN layers by liquid-phase epitaxy. Journal of Crystal Growth, 2006, 297, 4-6.	1.5	18
29	Investigations on cobalt doped GaN for spintronic applications. Journal of Crystal Growth, 2011, 318, 432-435.	1.5	17
30	Magnetic properties of Ni doped gallium nitride with vacancy induced defect. Journal of Magnetism and Magnetic Materials, 2010, 322, 238-241.	2.3	16
31	Density functional study of half-metallic property on B2 disordered Co <sub>2</sub> FeSi. Journal of Materials Science, 2015, 50, 1287-1294.	3.7	16
32	High Quality GaAs Epitaxial Layers Grown from GaAs <sub>1-x</sub> Bi <sub>x</sub> Solutions by Liquid Phase Epitaxy. Japanese Journal of Applied Physics, 1997, 36, 3385-3388.	1.5	15
33	Vibrational spectra of Y <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> crystals grown from Ba- and Pb-based flux systems. Infrared Physics, 1986, 26, 101-103.	0.5	14
34	Growth and properties of bulk indium phosphide doubly doped with cadmium and sulphur. Journal of Crystal Growth, 1989, 96, 795-801.	1.5	14
35	On the chloride vapor-phase epitaxy growth of GaN and its characterization. Journal of Crystal Growth, 2004, 260, 43-49.	1.5	14
36	Metastable zone width, induction period and interfacial energy of bis thiourea zinc acetate (BTZA). Journal of Crystal Growth, 2005, 276, 243-246.	1.5	14

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37	TiO <sub>2</sub> nanocomposite for the controlled release of drugs against pathogens causing wound infections. <i>Materials Research Express</i> , 2018, 5, 024003.	1.6	14
38	Investigations on the concentration profiles of arsenic atoms during liquid phase epitaxial growth of GaAs from Ga-As-Bi solution. <i>Materials Chemistry and Physics</i> , 1997, 49, 141-145.	4.0	13
39	First principle calculations of the ground state properties and structural phase transformation for ternary chalcogenide semiconductor under high pressure. <i>Computational Materials Science</i> , 2007, 40, 193-200.	3.0	13
40	Role of dopant induced defects on the properties of Nd and Cr doped PZNT single crystals. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2014, 185, 60-66.	3.5	13
41	Study on photoluminescence from tris-(8-hydroxyquinoline)indium thin films and influence of light. <i>Optik</i> , 2012, 123, 1393-1396.	2.9	12
42	Raman scattering studies in H <sup>+</sup> and He <sup>+</sup> implanted n-GaAs. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1998, 145, 395-400.	1.4	11
43	Investigations on H <sup>+</sup> and He <sup>+</sup> implantation effects in n-InP Using Raman Scattering. <i>Physica B: Condensed Matter</i> , 1999, 262, 329-335.	2.7	11
44	Investigations on the nucleation kinetics of tris thiourea zinc cadmium sulphate. <i>Journal of Crystal Growth</i> , 2006, 292, 528-531.	1.5	11
45	Structural, optical and electrical properties of high energy irradiated Cl-VPE grown gallium nitride. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2006, 129, 121-125.	3.5	11
46	Ab initio prediction of half-metallic ferromagnetism in Zn(TM)O <sub>2</sub> (TM=Cr, Mn, Fe, Co, Ni) compounds. <i>Journal of Magnetism and Magnetic Materials</i> , 2008, 320, 774-778.	2.3	11
47	Crystal growth of PZN-PT single crystals and critical issues for higher piezoelectric coefficient. <i>Crystal Research and Technology</i> , 2012, 47, 523-529.	1.3	11
48	Investigations on the Annealing Effects on Reactively Deposited ITO Thin Films. <i>Physica Status Solidi A</i> , 1997, 160, 97-104.	1.7	10
49	Investigations on Al/BaTiO <sub>3</sub> /GaN MFS structures. <i>Materials Letters</i> , 2002, 52, 80-84.	2.6	10
50	Electrical and optical isolation of GaN by high energy ion irradiation. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2003, 207, 308-313.	1.4	10
51	Growth and characterization of gallium nitride nanowire. <i>Journal of Crystal Growth</i> , 2005, 275, e2367-e2369.	1.5	10
52	Growth and characterization of l-tryptophan-doped ferroelectric TGS crystals. <i>Journal of Crystal Growth</i> , 2008, 310, 1497-1500.	1.5	10
53	On the Neel temperature and magnetic domain wall movements of Ga <sub>2-x</sub> Fe <sub>x</sub> O <sub>3</sub> single crystals grown by floating-zone technique. <i>Journal of Alloys and Compounds</i> , 2014, 590, 459-464.	5.5	10
54	Photovoltaic properties of sprayed In <sub>2</sub> O <sub>3</sub> -InP junctions. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1992, 14, 365-368.	3.5	9

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55	On the Bismuth Composition Dependent Concentration of Arsenic Atoms during LPE Growth of GaAs Layers from GaAs-Bi Solution. <i>Physica Status Solidi A</i> , 1998, 165, 437-443.	1.7	9
56	Investigations of cobalt and carbon codoping in gallium nitride for spintronic applications. <i>Journal of Magnetism and Magnetic Materials</i> , 2012, 324, 1528-1533.	2.3	9
57	Magnetic properties of gadolinium and carbon co-doped gallium nitride. <i>Solid State Communications</i> , 2017, 249, 7-11.	1.9	9
58	Raman spectroscopic study of He ion implanted 4H and 6H-SiC. <i>Materials Letters</i> , 2018, 213, 208-210.	2.6	9
59	Growth, morphological and structural investigations of neodymium aluminium borate crystals from different flux systems. <i>Journal of Crystal Growth</i> , 1990, 100, 651-654.	1.5	8
60	Spray-pyrolytic-grown ITO/InP junctions: effect of tin doping. <i>Semiconductor Science and Technology</i> , 1993, 8, 437-440.	2.0	8
61	Investigations on 40MeV Li <sup>3+</sup> ions irradiated GaN epilayers. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2008, 266, 1799-1803.	1.4	8
62	Effect of 100MeV Ni <sup>9+</sup> ion irradiation on MOCVD grown n-GaN. <i>Physica B: Condensed Matter</i> , 2011, 406, 4210-4213.	2.7	8
63	Micro Raman analysis of MOCVD grown gallium nitride epilayers irradiated with light and heavy ions. <i>Materials Chemistry and Physics</i> , 2012, 132, 494-499.	4.0	8
64	Growth and spectroscopic characterization of NdAl <sub>3</sub> (BO <sub>3</sub> ) <sub>4</sub> crystals grown using BaO-B <sub>2</sub> O <sub>3</sub> flux. <i>Journal of Materials Science Letters</i> , 1987, 6, 1241-1242.	0.5	7
65	Structural and mechanical properties of ion implanted GaAs and InP single crystals grown by the liquid encapsulated Czochralski technique. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1994, 28, 461-464.	3.5	7
66	Raman Scattering Studies on the Thin Graded Band Gap AlGaAs Hetero-Epitaxial Layer. <i>Crystal Research and Technology</i> , 1999, 34, 1293-1298.	1.3	7
67	Investigations on the nanostructures of GaN, InN and In <sub>x</sub> Ga <sub>1-x</sub> N. <i>Materials Science in Semiconductor Processing</i> , 2016, 49, 61-67.	4.0	7
68	Thermal cycling, DLTS, and PEC studies on LEC gallium arsenide. <i>Crystal Research and Technology</i> , 1994, 29, 223-228.	1.3	6
69	Improved electrical properties on the anodic oxide/InP interface for MOS structures. <i>Journal of Electronic Materials</i> , 1998, 27, 1358-1361.	2.2	6
70	Investigations on the CdS passivated anodic oxide/InP interface for MOS structures. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1999, 60, 25-30.	3.5	6
71	Raman scattering studies on hydrogen ion-implanted GaN. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2001, 179, 193-199.	1.4	6
72	Investigations on the influence of 100MeV O <sup>7+</sup> ion irradiation on the structural, surface morphology and optical studies of gallium nitride epilayers. <i>Radiation Effects and Defects in Solids</i> , 2007, 162, 229-236.	1.2	6

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73	First-principle calculations of structural stability of II-O1 $\hat{\sim}$ xVI $\times$ (II-Zn, Cd and VI-S, Se, Te) ordered chalcopyrite semiconductors. <i>Physica B: Condensed Matter</i> , 2008, 403, 1824-1830.	2.7	6
74	Electrical characteristics of 100 MeV 28Si implanted LEC grown GaAs $\hat{\sim}$ 100 $\hat{\sim}$ %. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1996, 117, 243-248.	1.4	5
75	A new etchant to reveal the subsurface damage on polished gallium arsenide substrates. <i>Journal of Crystal Growth</i> , 1997, 178, 229-232.	1.5	5
76	Growth of GaN films by chloride vapour phase epitaxy. <i>Journal of Crystal Growth</i> , 2004, 268, 475-477.	1.5	5
77	First-principle study of structural stability and electronic properties of Zn1 $\hat{\sim}$ xBex O semiconductor alloy. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 3183-3189.	1.5	5
78	Growth and characterization of gallium nitride nanocrystals on carbon nanotubes. <i>Journal of Crystal Growth</i> , 2008, 310, 2260-2263.	1.5	5
79	Investigations on the effect of 100MeV Ni ions irradiated chloride vapour phase epitaxy (Cl-VPE) grown GaN epilayers. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2009, 267, 79-82.	1.4	5
80	Theoretical investigation of the electronic and optical properties of Zn2OX (X=S, Se, Te) in chalcopyrite phase by full potential methods. <i>Journal of Alloys and Compounds</i> , 2009, 479, 414-419.	5.5	5
81	Investigations on Au, Ag, and Al schottky diodes on liquid encapsulated czochralski grown n-GaAs $\hat{\sim}$ 100 $\hat{\sim}$ %. <i>Journal of Electronic Materials</i> , 1995, 24, 813-817.	2.2	4
82	Annealing behaviour of 1 MeV hydrogen-implanted LEC grown InP <100>. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1995, 101, 240-242.	1.4	4
83	Current-voltage characteristics of low energy proton and alpha particle irradiated Au and Schottky barrier diodes. <i>Solid-State Electronics</i> , 1997, 41, 802-805.	1.4	4
84	Effect of bismuth on liquid-phase epitaxy (LPE) grown GaAs layer using Ga $\hat{\sim}$ As $\hat{\sim}$ Bi melt. <i>Journal of Crystal Growth</i> , 1999, 200, 341-347.	1.5	4
85	Structural characterisation of remelt liquid phase epitaxy (LPE) grown AlGaAs heteroepitaxial layer. <i>Journal of Crystal Growth</i> , 1999, 203, 327-332.	1.5	4
86	Investigations on the undersaturated liquid phase epitaxial growth of Al $\times$ Ga1 $\hat{\sim}$ xAs. <i>Journal of Crystal Growth</i> , 2000, 212, 29-34.	1.5	4
87	Investigations on the annealing behavior of high-energy carbon irradiated Au/n-GaAs Schottky barrier diodes. <i>Materials Science in Semiconductor Processing</i> , 2000, 3, 195-199.	4.0	4
88	Effect of H $\times$ implantation on the structural properties of GaN. <i>Materials Science in Semiconductor Processing</i> , 2001, 4, 585-589.	4.0	4
89	Transition metal swift heavy ion implantation on 4H-SiC. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2016, 370, 101-106.	1.4	4
90	Effect of substrate on the structural and magnetic properties of DC sputtered Co2FeSi full Heusler alloy thin films. <i>Journal of Crystal Growth</i> , 2017, 468, 220-224.	1.5	4

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91	Effect of irradiation on the microhardness of the LEC grown semi-insulating GaAs single crystals. Journal of Nuclear Materials, 1995, 225, 314-317.	2.7	3
92	Liquid Encapsulated Czochralski Growth of Large size Gallium Arsenide and Indium Phosphide Single Crystals and their Characterisationâ€”A Review. IETE Journal of Research, 1997, 43, 125-130.	2.6	3
93	Deep Level Transient Spectroscopic Analysis on Au/SiO <sub>2</sub> /InP MOS Structures. Physica Status Solidi A, 1999, 175, 591-596.	1.7	3
94	BaTiO <sub>3</sub> as an insulating layer for InP-based metal-insulatorâ€”semiconductor structures. Materials Letters, 2001, 51, 56-60.	2.6	3
95	First-principles prediction of half-metallic ferromagnetism in Cd(TM)O <sub>2</sub> (TM=Cr, Mn, Fe, Co, Ni) compounds. Physica B: Condensed Matter, 2008, 403, 2768-2772.	2.7	3
96	Microâ€”Raman analysis of GaAs Schottky barrier solar cell. Journal of Raman Spectroscopy, 2011, 42, 422-428.	2.5	3
97	Studies on structural and magnetic properties of NdFeO <sub>3</sub> single crystals grown by optical floating zone technique. Bulletin of Materials Science, 2020, 43, 1.	1.7	3
98	Inclusions in co-doped InP single crystals. Semiconductor Science and Technology, 1992, 7, A141-A145.	2.0	2
99	Investigations on the estimation of arsenic atoms and growth of GaAs epitaxial layers from bismuth solution. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 58, 229-233.	3.5	2
100	Investigations on thermal, mechanical properties and micro morphological studies on Tris thiourea zinc cadmium sulphate (TTZCS) single crystal. EPJ Applied Physics, 2008, 41, 69-73.	0.7	2
101	Investigations on the evaluation of schottky barrier diode parameters of the proton irradiated Ti/n-GaAs. Radiation Effects and Defects in Solids, 2000, 152, 39-47.	1.2	1
102	Progress in III-nitrides: Process issue and purity perspective. Bulletin of Materials Science, 2005, 28, 355-360.	1.7	1
103	Effect of tungsten doping on the properties of PZN-PT single crystals. AIP Conference Proceedings, 2021, , .	0.4	1
104	Growth and spectroscopic characterisation of Neodymium Aluminium Barium Borate using floating zone apparatus. Crystal Research and Technology, 1988, 23, 1337-1341.	1.3	0
105	Investigations on the swift heavy ion implanted GaAs substrates. Vacuum, 2002, 68, 291-296.	3.5	0
106	Studies on the Fluorescence of Tris-(8-hydroxyquinoline)Aluminum and the Effect of Light Exposure. Polymer-Plastics Technology and Engineering, 2010, 49, 1289-1291.	1.9	0
107	Investigations on the mechanical, optical and structural properties on L-methionine-doped triglycine sulfate single crystals. EPJ Applied Physics, 2012, 58, 10701.	0.7	0
108	Investigations on the Growth and Microhardness Studies of Ga <sub>2</sub> xFexO <sub>3</sub> Single Crystals. Physics of Metals and Metallography, 2021, 122, 1234-1240.	1.0	0