Adarsh Sandhu

List of Publications by Year
in descending order

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109 papers	1,715 citations	346980 22 h-index	355658 38 g-index
111 all docs	111 docs citations	111 times ranked	3122 citing authors

#	Article	IF	Citations
1	Solvatochromic peptidic binder obtained via extended phage display acts as a fluororeporter for fragment-based drug discovery (FBDD). Analytical and Bioanalytical Chemistry, 2022, 414, 4803-4807.	1.9	2
2	Smartphone-based On-chip Homogenous Sensing by Analysis of Dynamics of Oscillating Polystyrene Particles under Dielectrophoretic Forces. Sensors and Materials, 2022, 34, 2089.	0.3	0
3	Global snapshot of the effects of the COVID-19 pandemic on the research activities of materials scientists between Spring and Autumn 2020. Science and Technology of Advanced Materials, 2021, 22, 173-184.	2.8	3
4	Smartphone enabled medical diagnostics by optically tracking electromagnetically induced harmonic oscillations of magnetic particles suspended in analytes. Sensing and Bio-Sensing Research, 2020, 29, 100347.	2.2	2
5	High azimuthal angle tolerant dual-channel wavelength filter from visible to NIR using conically mounted guided mode resonance structures. Optics Letters, 2020, 45, 6010.	1.7	3
6	Preface: The Irago Conference 2018: A 360-degree Outlook on Critical Scientific and Technological Challenges for a Sustainable Society. AIP Conference Proceedings, 2019, , .	0.3	0
7	Micro-Hall Sensors Based on Two-Dimensional Molybdenum Diselenide. Journal of Nanoscience and Nanotechnology, 2019, 19, 4330-4332.	0.9	3
8	Smartphone based platform for real-time sharing of medical diagnostics information by optical detection of functionalized fluorescent magnetic nanoparticles. Biomedical Physics and Engineering Express, 2019, 5, 035014.	0.6	8
9	Magnetic Nanoparticle-Based Nano-Grating Guided-Mode Resonance Biosensors. IEEE Transactions on Magnetics, 2018, 54, 1-6.	1.2	2
10	Preface: The Irago Conference 2017: A 360-degree Outlook on Critical Scientific and Technological Challenges for a Sustainable Society. AIP Conference Proceedings, 2018, , .	0.3	0
11	Optoelectronic Characterizations of Two-Dimensional h-BN/MoSe2 Heterostructures Based Photodetector. Science of Advanced Materials, 2018, 10, 627-631.	0.1	6
12	High-performance near-infrared photodetector based on nano-layered MoSe₂. Semiconductor Science and Technology, 2017, 32, 065015.	1.0	46
13	Wide wavelength range tunable one-dimensional silicon nitride nano-grating guided mode resonance filter based on azimuthal rotation. AIP Advances, 2017, 7, .	0.6	28
14	Gate-tunable optoelectronic properties of a nano-layered GaSe photodetector. Optical Materials Express, 2017, 7, 587.	1.6	18
15	High sensitivity refractive index sensor based on simple diffraction from phase grating. Optics Letters, 2016, 41, 2101.	1.7	6
16	Thickness dependence on the optoelectronic properties of multilayered GaSe based photodetector. Nanotechnology, 2016, 27, 325202.	1.3	34
17	Fast and sensitive medical diagnostic protocol based on integrating circular current lines for magnetic washing and optical detection of fluorescent magnetic nanobeads. Sensing and Bio-Sensing Research, 2016, 9, 7-12.	2.2	5
18	Magnetic-Particle-Sensing Based Diagnostic Protocols and Applications. Sensors, 2015, 15, 12983-12998.	2.1	16

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19	Preface: The Irago Conference 2014: A 360 Degree Outlook at Critical Scientific and Technological Challenges for a Sustainable Society. , 2015, , .		0
20	Origin of 1/ f noise in graphene produced for largeâ€scale applications in electronics. IET Circuits, Devices and Systems, 2015, 9, 52-58.	0.9	9
21	Fluidity evaluation of cell membrane model formed on graphene oxide with single particle tracking using quantum dot. Japanese Journal of Applied Physics, 2015, 54, 04DL09.	0.8	5
22	Laser Power Dependent Optical Properties of Mono- and Few-Layer MoS₂. Journal of Nanoscience and Nanotechnology, 2015, 15, 6843-6846.	0.9	26
23	On-chip magnetometer for characterization of superparamagnetic nanoparticles. Lab on A Chip, 2015, 15, 696-703.	3.1	23
24	Preface: The Irago Conference 2013: A 360 Degree Outlook on Critical Scientific and Technological Challenges for a Sustainable Society. , 2014, , .		0
25	Charge transfer in graphene oxide-dye system for photonic applications. , 2014, , .		1
26	GMR-based PhC biosensor: FOM analysis and experimental studies. , 2014, , .		0
27	Proton Irradiation Enhancement of Low-Field Negative Magnetoresistance Sensitivity of AlGaN/GaN-Based Magnetic Sensor at Cryogenic Temperature. IEEE Electron Device Letters, 2014, 35, 1130-1132.	2.2	10
28	High Proton Radiation Tolerance of InAsSb Quantum-Well-Based micro-Hall Sensors. IEEE Electron Device Letters, 2014, 35, 1305-1307.	2.2	1
29	Functionalization of Magnetotactic Bacteria for Microrobotic Applications. IEEE Transactions on Magnetics, 2014, 50, 1-4.	1.2	4
30	High photosensitivity few-layered MoSe2 back-gated field-effect phototransistors. Nanotechnology, 2014, 25, 365202.	1.3	146
31	Chemical synthesis of Fe3O4â€“graphene oxide nanohybrids as building blocks for magnetic and conductive membranes. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2014, 189, 13-20.	1.7	37
32	Magnetically Induced Self-Assembly of Superparamagnetic Particles for Medical Diagnostics. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2014, 61, S111-S116.	0.1	0
33	Ecofriendly Route for the Synthesis of Highly Conductive Graphene Using Extremophiles for Green Electronics and Bioscience. Particle and Particle Systems Characterization, 2013, 30, 573-578.	1.2	26
34	Room-temperature synthesis and enhanced catalytic performance of silver-reduced graphene oxide nanohybrids. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	25
35	Radical-assisted chemical doping for chemically derived graphene. Nanoscale Research Letters, 2013, 8, 534.	3.1	7
36	Viral protein-coating of magnetic nanoparticles using simian virus 40 VP1. Journal of Biotechnology, 2013, 167, 8-15.	1.9	23

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37	Optimization of Pathway Pattern Size for Programmable Biomolecule Actuation. IEEE Transactions on Magnetics, 2013, 49, 408-413.	1.2	11
38	Porous Silicon Platform for Optical Detection of Functionalized Magnetic Particles Biosensing. Journal of Nanoscience and Nanotechnology, 2013, 13, 2451-2460.	0.9	12
39	Effect of proton irradiation on AlGaN/GaN micro-Hall sensors. Applied Physics Letters, 2013, 102, 193510.	1.5	9
40	The Irago Conference 2012. Journal of Physics: Conference Series, 2013, 433, 011001.	0.3	0
41	Robust Hall Effect Magnetic Field Sensors for Operation at High Temperatures and in Harsh Radiation Environments. IEEE Transactions on Magnetics, 2012, 48, 4421-4423.	1.2	19
42	Layer-by-layer assembled transparent conductive graphene films for solar cells application. Materials Research Society Symposia Proceedings, 2012, 1451, 75-81.	0.1	0
43	Biosensing Based on Magnetically Induced Self-Assembly of Particles in Magnetic Colloids. Journal of Nanoscience and Nanotechnology, 2012, 12, 2081-2088.	0.9	4
44	Porous Silicon Based Protocol for the Rapid and Real-Time Monitoring of Biorecognition Between Human IgG and Protein A Using Functionalized Superparamagnetic Beads. IEEE Transactions on Magnetics, 2012, 48, 2846-2849.	1.2	4
45	Fabrication and optical characterization of p-type single macro-porous silicon for detection of nano-sized functionalized superparamagnetic beads. Journal of Non-Crystalline Solids, 2012, 358, 2327-2330.	1.5	3
46	Layer-by-Layer Assembled Transparent Conductive Graphene Films for Silicon Thin-Film Solar Cells. Japanese Journal of Applied Physics, 2012, 51, 11PF01.	0.8	8
47	A two-step ligand exchange reaction generates highly water-dispersed magnetic nanoparticles for biomedical applications. Journal of Materials Chemistry, 2011, 21, 5959.	6.7	43
48	Microstructure and optical properties of Ag-doped ZnO nanostructures prepared by a wet oxidation doping process. Nanotechnology, 2011, 22, 105706.	1.3	41
49	Doping graphene films via chemically mediated charge transfer. Nanoscale Research Letters, 2011, 6, 111.	3.1	37
50	Porous-Silicon Photonic-Crystal Platform for the Rapid Detection of Nano-Sized Superparamagnetic Beads for Biosensing Applications. Nanoscience and Nanotechnology Letters, 2011, 3, 612-616.	0.4	8
51	Hybrid AlGaN/GaN-ZnO-Nanowire Gas Sensors. Journal of Nanoscience and Nanotechnology, 2011, 11, 3938-3942.	0.9	2
52	Synthesis and applications of magnetic nanoparticles for biorecognition and point of care medical diagnostics. Nanotechnology, 2010, 21, 442001.	1.3	117
53	Determination of Inter-Molecular Forces by Magneto-Optical Transmittance of Molecule-Covered Superparamagnetic Particles in Solution. IEEE Transactions on Magnetics, 2010, 46, 1409-1411.	1.2	3
54	Patterning of Two-Dimensional Graphene Oxide on Silicon Substrates. Japanese Journal of Applied Physics, 2010, 49, 06GC02.	0.8	12

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55	Detection of 8 nm Diameter Superparamagnetic Beads by Magnetically-Induced Manipulation of Micrometer-Sized Magnetic Beads: A Novel Protocol for Magnetically-Labeled Biosensing. Japanese Journal of Applied Physics, 2010, 49, 04DL07.	0.8	3
56	Magneto-Optical Biosensing Platform Based on Light Scattering from Self-Assembled Chains of Functionalized Rotating Magnetic Beads. Nano Letters, 2010, 10, 446-451.	4.5	63
57	A new approach to intellectual property. Nature Nanotechnology, 2009, 4, 7-8.	15.6	6
58	Highs from lows. Nature Nanotechnology, 2009, 4, 83-83.	15.6	2
59	Strictly nanotubes in Beijing. Nature Nanotechnology, 2009, 4, 398-399.	15.6	7
60	Probing superconductivity at the nanoscale. Nature Nanotechnology, 2009, 4, 142-142.	15.6	3
61	Preparation of spherical and uniform-sized ferrite nanoparticles with diameters between 50 and 150 nm for biomedical applications. Journal of Magnetism and Magnetic Materials, 2009, 321, 1417-1420.	1.0	33
62	High-throughput bioscreening system utilizing high-performance affinity magnetic carriers exhibiting minimal non-specific protein binding. Journal of Magnetism and Magnetic Materials, 2009, 321, 1625-1627.	1.0	2
63	Wide range (20â€“200 nm) size control of spherical ferrite particles grown on seed crystals in aqueous solution added with sucrose. Journal of Materials Research, 2009, 24, 2051-2055.	1.2	9
64	Development of novel magnetic nano-carriers for high-performance affinity purification. Colloids and Surfaces B: Biointerfaces, 2008, 64, 162-169.	2.5	95
65	Setting the standard. Nature Nanotechnology, 2008, 3, 63-64.	15.6	2
66	Thailand resorts to nanotech. Nature Nanotechnology, 2008, 3, 450-451.	15.6	6
67	Contact Mode Scanning Hall Probe Microscopy. IEEE Transactions on Magnetics, 2008, 44, 3252-3254.	1.2	2
68	The endoscope of the future. Nature Photonics, 2007, 1, 514-514.	15.6	1
69	Light pipe to the home. Nature Photonics, 2007, 1, 162-162.	15.6	1
70	Ultrafast imagination. Nature Photonics, 2007, 1, 638-638.	15.6	1
71	The future of ultraviolet LEDs. Nature Photonics, 2007, 1, 38-38.	15.6	45
72	Quantum-dot venture unveiled. Nature Photonics, 2007, 1, 392-392.	15.6	0

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73	Monitoring DNA Hybridization by Quantification of Nitrogen Content Using X-Ray Photoelectron Spectroscopy. Japanese Journal of Applied Physics, 2007, 46, L49-L52.	0.8	1
74	High temperature scanning Hall probe microscopy using AlGaNâˆ•GaN two dimensional electron gas micro-Hall probes. Journal of Applied Physics, 2007, 101, 09K105.	1.1	18
75	Variable temperature scanning Hall probe microscopy of ferromagnetic garnet thin films. Journal of Magnetism and Magnetic Materials, 2007, 310, 2693-2695.	1.0	2
76	The birth of nanoChina. Nature Nanotechnology, 2007, 2, 11-12.	15.6	2
77	South Korea plays to its strengths. Nature Nanotechnology, 2007, 2, 455-456.	15.6	0
78	A career in carbon. Nature Nanotechnology, 2007, 2, 590-591.	15.6	6
79	New probes offer much faster results. Nature Nanotechnology, 2007, 2, 746-748.	15.6	54
80	High efficiency Hall effect micro-biosensor platform for detection of magnetically labeled biomolecules. Biosensors and Bioelectronics, 2007, 22, 2115-2120.	5.3	38
81	NEDO GaN HB-LED HVPE project. III-Vs Review, 2006, 19, 36-38.	0.1	1
82	Detection of magnetically labeled DNA using pseudomorphic AlGaAsâˆ•InGaAsâˆ•GaAs heterostructure micro-Hall biosensors. Journal of Applied Physics, 2006, 99, 08P103.	1.1	22
83	Thin-Film Semiconductor Hall Effect Biosensors for Medical Applications. IEEJ Transactions on Sensors and Micromachines, 2005, 125, 444-447.	0.0	1
84	The JSPS 162 committee. III-Vs Review, 2005, 18, 34-36.	0.1	2
85	High Sensitivity InSb Hall Effect Biosensor Platform for DNA Detection and Biomolecular Recognition Using Functionalized Magnetic Nanobeads. Japanese Journal of Applied Physics, 2005, 44, L1494-L1497.	0.8	22
86	A novel variable temperature scanning nano-Hall probe microscope system for large area magnetic imaging incorporating piezoelectric actuators maintained at room temperature. Nanotechnology, 2004, 15, S410-S413.	1.3	19
87	High Sensitivity InSb Ultra-Thin Film Micro-Hall Sensors for Bioscreening Applications. Japanese Journal of Applied Physics, 2004, 43, L868-L870.	0.8	54
88	Monitoring eyes on Indium Phosphide. III-Vs Review, 2004, 17, 31-33.	0.1	0
89	50 nm Hall Sensors for Room Temperature Scanning Hall Probe Microscopy. Japanese Journal of Applied Physics, 2004, 43, 777-778.	0.8	97
90	Micro-Hall Devices for Scanning Hall Probe Microscopy. IEEJ Transactions on Sensors and Micromachines, 2004, 124, 233-237.	0.0	1

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91	Formation of nano-oxide regions in p2+-GaAs epilayers by localized atomic force microscope probe oxidation for fabrication of nano-structure devices. Journal of Crystal Growth, 2003, 251, 276-280.	0.7	0
92	Room Temperature Scanning Micro-Hall Probe Microscope Imaging of Ferromagnetic Microstructures in the Presence of 2.5 Tesla Pulsed Magnetic Fields Generated by an Integrated Mini Coil. Japanese Journal of Applied Physics, 2002, 41, L1402-L1405.	0.8	12
93	Direct Magnetic Imaging of Ferromagnetic Domain Structures by Room Temperature Scanning Hall Probe Microscopy Using a Bismuth Micro-Hall Probe. Japanese Journal of Applied Physics, 2001, 40, L524-L527.	0.8	22
94	Room Temperature Sub-Micron Magnetic Imaging by Scanning Hall Probe Microscopy. Japanese Journal of Applied Physics, 2001, 40, 4321-4324.	0.8	26
95	Effect of low-energy nitrogen molecular-ion impingement during the epitaxial growth of GaAs on the photoluminescence spectra. Applied Physics Letters, 1999, 74, 2675-2677.	1.5	16
96	Thermal behavior of residual strain in silicon-on-insulator bonded wafer and effects on electron mobility. Solid-State Electronics, 1999, 43, 1117-1120.	0.8	10
97	Low-energy nitrogen-ion doping into GaAs and its optical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1998, 253, 301-305.	2.6	3
98	InGaP/InGaAs/GaAs High Electron Mobility Transistor Structure Grown by Solid Source Molecular Beam Epitaxy Using GaP as Phosphorous Source. Japanese Journal of Applied Physics, 1997, 36, L647-L649.	0.8	17
99	Properties of High Quality InP Epilayers Grown by Solid Source Molecular Beam Epitaxy using Polycrystalline GaP as a Phosphorous Source. Japanese Journal of Applied Physics, 1996, 35, 2108-2109.	0.8	20
100	Raman spectroscopy of nanostructured germanium films deposited by a cluster-beam technique.. Journal of Advanced Science, 1996, 8, 11-14.	0.1	0
101	High Current Gain AlGaAs/GaAs Heterojunction Bipolar Transistors with Carbon-Doped Base Grown by Gas Source Molecular Beam Epitaxy Using Trimethylamine Alane as the Aluminum Source. Japanese Journal of Applied Physics, 1993, 32, L309-L311.	0.8	7
102	Growth of carbon-doped base GaAs/AlGaAs HBT by gas-source MBE using TEG, TEA, TMG, AsH3, and Si2H6. Journal of Crystal Growth, 1992, 120, 228-233.	0.7	8
103	Si2H6Doping of InP in Gas-Source Molecular Beam Epitaxy Using Triethylindium and Phosphine. Japanese Journal of Applied Physics, 1991, 30, L1696-L1698.	0.8	4
104	Gas Source Melecular Beam Epitaxy Growth of High Quality AlGaAs Using Trimethylamine Alane as the Aluminum Source. Japanese Journal of Applied Physics, 1991, 30, 3792-3795.	0.8	6
105	Carbon-Doped-Base AlGaAs/GaAs HBTs Grown by Gas-Source Molecular Beam Epitaxy Using Only Gaseous Sources. Japanese Journal of Applied Physics, 1991, 30, 3843-3845.	0.8	10
106	Gas Source MBE Growth of GaAs/AlGaAs Heterojunction Bipolar Transistor with a Carbon Doped Base Using Only Gaseous Sources. Japanese Journal of Applied Physics, 1991, 30, 464-465.	0.8	18
107	A Study of Cold Dopant Sources for Gas Source MBE: The use of Disilane as an N-Type Dopant of AlxGa1-xAs (x=0-0.28) and Trimethylgallium as a P-Type Dopant of GaAs. Japanese Journal of Applied Physics, 1990, 29, L1033-L1035.	0.8	11
108	Doping Characteristics of Gas-Source MBE-Grown n-AlxGa1-xAs (x=0-0.28) Doped Using Disilane. Japanese Journal of Applied Physics, 1990, 29, 2386-2387.	0.8	5

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109	Growth and characterization of GaAs0.5Sb0.5 lattice-matched to InP by molecular beam epitaxy. Journal of Crystal Growth, 1988, 91, 655-658.	0.7	23