Prasanta Kumar Guha

List of Publications by Year
in descending order

44 papers	1,349 citations	361413 20 h-index	345221 36 g-index
44 all docs	44 docs citations	44 times ranked	1695 citing authors

#	Article	IF	Citations
1	Hierarchical nanostructured WO₃â€“SnO₂for selective sensing of volatile organic compounds. Nanoscale, 2015, 7, 12460-12473.	5.6	179
2	Liquid exfoliated pristine WS₂nanosheets for ultrasensitive and highly stable chemiresistive humidity sensors. Nanotechnology, 2016, 27, 475503.	2.6	100
3	Selective Discrimination of VOCs Applying Gas Sensing Kinetic Analysis over a Metal Oxide-Based Chemiresistive Gas Sensor. ACS Sensors, 2021, 6, 2218-2224.	7.8	78
4	Enhanced ammonia sensing at room temperature with reduced graphene oxide/tin oxide hybrid films. RSC Advances, 2015, 5, 50165-50173.	3.6	77
5	Air Pollution Monitoring Using Near Room Temperature Resistive Gas Sensors: A Review. IEEE Transactions on Electron Devices, 2019, 66, 3254-3264.	3.0	70
6	Pt decorated MoS₂nanoflakes for ultrasensitive resistive humidity sensor. Nanotechnology, 2018, 29, 115504.	2.6	66
7	Single resistive sensor for selective detection of multiple VOCs employing SnO2 hollowspheres and machine learning algorithm: A proof of concept. Sensors and Actuators B: Chemical, 2020, 321, 128484.	7.8	66
8	Ammonia vapour sensing properties of in situ polymerized conducting PANI-nanofiber/WS₂ nanosheet composites. New Journal of Chemistry, 2018, 42, 735-745.	2.8	64
9	An effective liquid-phase exfoliation approach to fabricate tungsten disulfide into ultrathin two-dimensional semiconducting nanosheets. Journal of Materials Science, 2017, 52, 7256-7268.	3.7	53
10	Humidity Sensor Based on High Proton Conductivity of Graphene Oxide. IEEE Nanotechnology Magazine, 2015, 14, 931-937.	2.0	52
11	A review of micromachined thermal accelerometers. Journal of Micromechanics and Microengineering, 2017, 27, 123002.	2.6	46
12	Substitutional Doping of MoS₂ for Superior Gas-Sensing Applications: A Proof of Concept. ACS Sensors, 2021, 6, 3398-3408.	7.8	41
13	Pt-functionalized reduced graphene oxide for excellent hydrogen sensing at room temperature. Applied Physics Letters, 2015, 107, .	3.3	36
14	Voltage-controlled NiO/ZnO pâ€“n heterojunction diode: a new approach towards selective VOC sensing. Microsystems and Nanoengineering, 2020, 6, 35.	7.0	36
15	Role of vacancy sites and UV-ozone treatment on few layered MoS₂nanoflakes for toxic gas detection. Nanotechnology, 2017, 28, 435502.	2.6	35
16	WS₂/GO Nanohybrids for Enhanced Relative Humidity Sensing at Room Temperature. IEEE Sensors Journal, 2017, 17, 7340-7347.	4.7	30
17	Selective Detection of VOCs With WO₃ Nanoplates-Based Single Chemiresistive Sensor Device Using Machine Learning Algorithms. IEEE Sensors Journal, 2021, 21, 5771-5778.	4.7	26
18	Enhanced Gas Sensing Properties of Liquid-Processed Semiconducting Tungsten Chalcogenide (WX_i, X = O and S) Based Hybrid Nanomaterials. IEEE Sensors Journal, 2018, 18, 3494-3501.	4.7	25

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19	ZnO/MoS₂-Based Enhanced Humidity Sensor Prototype With Android App Interface for Mobile Platform. IEEE Sensors Journal, 2019, 19, 3993-3999.	4.7	25
20	SOI CMOS-Based Smart Gas Sensor System for Ubiquitous Sensor Networks. ETRI Journal, 2008, 30, 516-525.	2.0	22
21	Synthesis of Cu_xNi_(1â^'x)O coral-like nanostructures and their application in the design of a reusable toxic heavy metal ion sensor based on an adsorption-mediated electrochemical technique. Environmental Science: Nano, 2017, 4, 191-202.	4.3	20
22	ZnO/$gamma$ -Fe₂O₃ Heterostructure Toward High-Performance Acetone Sensing. IEEE Sensors Journal, 2019, 19, 8576-8582.	4.7	19
23	Ultra-selective tin oxide-based chemiresistive gas sensor employing signal transform and machine learning techniques. Analytica Chimica Acta, 2022, 1217, 339996.	5.4	19
24	Photon-Assisted Ultra-Selective Formaldehyde Sensing by Defect Induced NiO-Based Resistive Sensor. IEEE Sensors Journal, 2018, 18, 5656-5661.	4.7	17
25	Humidity Sensing Properties of Coexfoliated Heterogeneous WS₂/WSe₂ Nanohybrids. IEEE Nanotechnology Magazine, 2018, 17, 582-589.	2.0	15
26	Platinum Nanoparticles Decorated Graphene Oxide Based Resistive Device for Enhanced Formaldehyde Sensing: First-Principle Study and its Experimental Correlation. IEEE Transactions on Electron Devices, 2019, 66, 1942-1949.	3.0	15
27	Graphene Oxide Wrapped Hollow SnO₂ Sphere for Room Temperature Formaldehyde Sensing: An Insight Through Computational Analysis & Experimental Study. IEEE Transactions on Electron Devices, 2020, 67, 3767-3774.	3.0	15
28	Reduced Graphene Oxide-Based Piezoelectric Nanogenerator With Water Excitation. IEEE Nanotechnology Magazine, 2016, 15, 268-273.	2.0	14
29	Coral-Like Cu_xNi_(1â^'x)O-Based Resistive Sensor for Humidity and VOC Detection. IEEE Sensors Journal, 2018, 18, 6078-6084.	4.7	13
30	Quantum capacitance tuned flexible supercapacitor by UV-ozone treated defect engineered reduced graphene oxide forest. Nanotechnology, 2019, 30, 435404.	2.6	10
31	Simultaneous Angular Rate Estimates Extracted From a Single Axisymmetric Resonator. IEEE Sensors Journal, 2017, 17, 7460-7469.	4.7	9
32	Flexible Large MoS₂ Film Based Ammonia Sensor. , 2018, 2, 1-4.		9
33	Selective Reduction of Oxygen Functional Groups to Improve the Response Characteristics of Graphene Oxide-Based Formaldehyde Sensor Device: A First Principle Study. IEEE Transactions on Electron Devices, 2018, , 1-8.	3.0	8
34	First Principles Study of Noble Metal (Single Atom and Cluster) Decorated Reduced Graphene Oxide for Efficient Formaldehyde Adsorption. IEEE Sensors Journal, 2021, 21, 2544-2551.	4.7	8
35	Liquid Exfoliated NiO Nanosheets for Trace Level Detection of Acetone Vapors. IEEE Transactions on Electron Devices, 2019, 66, 3568-3572.	3.0	7
36	RGO/Ni₂O₃ Heterojunction-Based Reusable, Flexible Device for Cr(VI) Ion Detection in Water. IEEE Transactions on Electron Devices, 2021, 68, 780-785.	3.0	7

#	Article	IF	Citations
37	Sensitivity improvement of a dual axis thermal accelerometer with modified cavity structure. Microsystem Technologies, 2017, 23, 5357-5363.	2.0	6
38	Exfoliated MoS2 based Humidity Sensing. Advanced Materials Proceedings, 2021, 1, 176-179.	0.2	4
39	Structurally modified V₂O₅ based extrinsic pseudocapacitor. Nanotechnology, 2022, 33, 255402.	2.6	3
40	Temporal dynamics of photonic stop-band in volatile solvent infiltrated opals. Optical Materials, 2021, 117, 111146.	3.6	2
41	Exploring Formaldehyde Sensing Capability of Noble Metal Decorated Reduced Graphene Oxide through First Principle Approach. , 2019, , .		1
42	Fe_xNi_(1-x)O/NiO Heterojunction-Based Selective VOC Sensor Device by Using Temperature Tunability. IEEE Sensors Journal, 2020, 20, 7503-7508.	4.7	1
43	SOI CMOS Platform for Gas Sensing Applications. ECS Transactions, 2009, 22, 281-292.	0.5	0
44	CMOS-based resistive and FET devices for smart gas sensors. , 2020, , 125-141.		0