

# Prasanta Kumar Guha

## List of Publications by Year in descending order

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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	Structurally modified V <sub>2</sub> O <sub>5</sub> based extrinsic pseudocapacitor. Nanotechnology, 2022, 33, 255402.	2.6	3
2	Ultra-selective tin oxide-based chemiresistive gas sensor employing signal transform and machine learning techniques. Analytica Chimica Acta, 2022, 1217, 339996.	5.4	19
3	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
4	RGO/Ni <sub>2</sub> O <sub>3</sub> Heterojunction-Based Reusable, Flexible Device for Cr(VI) Ion Detection in Water. IEEE Transactions on Electron Devices, 2021, 68, 780-785.	3.0	7
5	Selective Detection of VOCs With WO <sub>3</sub> Nanoplates-Based Single Chemiresistive Sensor Device Using Machine Learning Algorithms. IEEE Sensors Journal, 2021, 21, 5771-5778.	4.7	26
6	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
7	Temporal dynamics of photonic stop-band in volatile solvent infiltrated opals. Optical Materials, 2021, 117, 111146.	3.6	2
8	Substitutional Doping of MoS <sub>2</sub> for Superior Gas-Sensing Applications: A Proof of Concept. ACS Sensors, 2021, 6, 3398-3408.	7.8	41
9	Exfoliated MoS <sub>2</sub> based Humidity Sensing. Advanced Materials Proceedings, 2021, 1, 176-179.	0.2	4
10	CMOS-based resistive and FET devices for smart gas sensors. , 2020, , 125-141.		0
11	Graphene Oxide Wrapped Hollow SnO <sub>2</sub> 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
12	Voltage-controlled NiO/ZnO p-n heterojunction diode: a new approach towards selective VOC sensing. Microsystems and Nanoengineering, 2020, 6, 35.	7.0	36
13	Single resistive sensor for selective detection of multiple VOCs employing SnO <sub>2</sub> hollowspheres and machine learning algorithm: A proof of concept. Sensors and Actuators B: Chemical, 2020, 321, 128484.	7.8	66
14	Fe <sub>x</sub> Ni <sub>(1-x)</sub> O/NiO Heterojunction-Based Selective VOC Sensor Device by Using Temperature Tunability. IEEE Sensors Journal, 2020, 20, 7503-7508.	4.7	1
15	Liquid Exfoliated NiO Nanosheets for Trace Level Detection of Acetone Vapors. IEEE Transactions on Electron Devices, 2019, 66, 3568-3572.	3.0	7
16	Quantum capacitance tuned flexible supercapacitor by UV-ozone treated defect engineered reduced graphene oxide forest. Nanotechnology, 2019, 30, 435404.	2.6	10
17	Air Pollution Monitoring Using Near Room Temperature Resistive Gas Sensors: A Review. IEEE Transactions on Electron Devices, 2019, 66, 3254-3264.	3.0	70
18	ZnO/\$\gamma\$-Fe <sub>2</sub> O <sub>3</sub> Heterostructure Toward High-Performance Acetone Sensing. IEEE Sensors Journal, 2019, 19, 8576-8582.	4.7	19

#	ARTICLE	IF	CITATIONS
19	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
20	ZnO/MoS <sub>2</sub> -Based Enhanced Humidity Sensor Prototype With Android App Interface for Mobile Platform. IEEE Sensors Journal, 2019, 19, 3993-3999.	4.7	25
21	Exploring Formaldehyde Sensing Capability of Noble Metal Decorated Reduced Graphene Oxide through First Principle Approach. , 2019, , .		1
22	Flexible Large MoS <sub>2</sub> Film Based Ammonia Sensor. , 2018, 2, 1-4.		9
23	Pt decorated MoS <sub>2</sub> nanoflakes for ultrasensitive resistive humidity sensor. Nanotechnology, 2018, 29, 115504.	2.6	66
24	Humidity Sensing Properties of Coexfoliated Heterogeneous WS <sub>2</sub> /WSe <sub>2</sub> Nanohybrids. IEEE Nanotechnology Magazine, 2018, 17, 582-589.	2.0	15
25	Enhanced Gas Sensing Properties of Liquid-Processed Semiconducting Tungsten Chalcogenide (WX <sub>i</sub> , X = O and S) Based Hybrid Nanomaterials. IEEE Sensors Journal, 2018, 18, 3494-3501.	4.7	25
26	Ammonia vapour sensing properties of <i>in situ</i> polymerized conducting PANI-nanofiber/WS <sub>2</sub> nanosheet composites. New Journal of Chemistry, 2018, 42, 735-745.	2.8	64
27	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
28	Photon-Assisted Ultra-Selective Formaldehyde Sensing by Defect Induced NiO-Based Resistive Sensor. IEEE Sensors Journal, 2018, 18, 5656-5661.	4.7	17
29	Coral-Like Cu <sub>x</sub> Ni <sub>(1-x)</sub> O-Based Resistive Sensor for Humidity and VOC Detection. IEEE Sensors Journal, 2018, 18, 6078-6084.	4.7	13
30	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
31	Sensitivity improvement of a dual axis thermal accelerometer with modified cavity structure. Microsystem Technologies, 2017, 23, 5357-5363.	2.0	6
32	A review of micromachined thermal accelerometers. Journal of Micromechanics and Microengineering, 2017, 27, 123002.	2.6	46
33	Role of vacancy sites and UV-ozone treatment on few layered MoS <sub>2</sub> nanoflakes for toxic gas detection. Nanotechnology, 2017, 28, 435502.	2.6	35
34	Synthesis of Cu <sub>x</sub> Ni <sub>(1-x)</sub> 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
35	Simultaneous Angular Rate Estimates Extracted From a Single Axisymmetric Resonator. IEEE Sensors Journal, 2017, 17, 7460-7469.	4.7	9
36	WS <sub>2</sub> /GO Nanohybrids for Enhanced Relative Humidity Sensing at Room Temperature. IEEE Sensors Journal, 2017, 17, 7340-7347.	4.7	30

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37	Liquid exfoliated pristine WS <sub>2</sub> nanosheets for ultrasensitive and highly stable chemiresistive humidity sensors. Nanotechnology, 2016, 27, 475503.	2.6	100
38	Reduced Graphene Oxide-Based Piezoelectric Nanogenerator With Water Excitation. IEEE Nanotechnology Magazine, 2016, 15, 268-273.	2.0	14
39	Pt-functionalized reduced graphene oxide for excellent hydrogen sensing at room temperature. Applied Physics Letters, 2015, 107, .	3.3	36
40	Enhanced ammonia sensing at room temperature with reduced graphene oxide/tin oxide hybrid films. RSC Advances, 2015, 5, 50165-50173.	3.6	77
41	Hierarchical nanostructured WO <sub>3</sub> –SnO <sub>2</sub> for selective sensing of volatile organic compounds. Nanoscale, 2015, 7, 12460-12473.	5.6	179
42	Humidity Sensor Based on High Proton Conductivity of Graphene Oxide. IEEE Nanotechnology Magazine, 2015, 14, 931-937.	2.0	52
43	SOI CMOS Platform for Gas Sensing Applications. ECS Transactions, 2009, 22, 281-292.	0.5	0
44	SOI CMOS-Based Smart Gas Sensor System for Ubiquitous Sensor Networks. ETRI Journal, 2008, 30, 516-525.	2.0	22