

Tania Roy

List of Publications by Year in descending order

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Version: 2024-02-01

31
papers

2,846
citations

304368

22
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476904

29
g-index

31
all docs

31
docs citations

31
times ranked

4995
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Graphene Enhances Actin Filament Assembly Kinetics and Modulates NIH-3T3 Fibroblast Cell Spreading. International Journal of Molecular Sciences, 2022, 23, 509. | 1.8 | 6 |
| 2 | MoS ₂ Synapses with Ultra-low Variability and Their Implementation in Boolean Logic. ACS Nano, 2022, 16, 2866-2876. | 7.3 | 38 |
| 3 | The artificial intelligent Pixel (aiPixel). , 2022, , . | | 0 |
| 4 | Graphene oxide interface for optoelectronic synapse application. Scientific Reports, 2022, 12, 5880. | 1.6 | 11 |
| 5 | Multiwavelength Optoelectronic Synapse with 2D Materials for Mixed-Color Pattern Recognition. ACS Nano, 2022, 16, 10188-10198. | 7.3 | 47 |
| 6 | Growing Perovskite Quantum Dots on Carbon Nanotubes for Neuromorphic Optoelectronic Computing. Advanced Electronic Materials, 2021, 7, . | 2.6 | 29 |
| 7 | Scalable Van der Waals Two-Dimensional PtTe ₂ Layers Integrated onto Silicon for Efficient Near-to-Mid Infrared Photodetection. ACS Applied Materials & Interfaces, 2021, 13, 15542-15550. | 4.0 | 27 |
| 8 | Semiconductor-to-metal transition in atomic layer deposition (ALD) of VO ₂ films using VCl ₄ and water. Applied Physics Letters, 2021, 118, . | 1.5 | 4 |
| 9 | Two-Dimensional Near-Atom-Thickness Materials for Emerging Neuromorphic Devices and Applications. IScience, 2020, 23, 101676. | 1.9 | 44 |
| 10 | Artificial Nociceptor Using 2D MoS ₂ Threshold Switching Memristor. IEEE Electron Device Letters, 2020, 41, 1440-1443. | 2.2 | 37 |
| 11 | Optoelectronic synapse using monolayer MoS ₂ field effect transistors. Scientific Reports, 2020, 10, 21870. | 1.6 | 61 |
| 12 | Thickness-Independent Semiconducting-to-Metallic Conversion in Wafer-Scale Two-Dimensional PtSe ₂ Layers by Plasma-Driven Chalcogen Defect Engineering. ACS Applied Materials & Interfaces, 2020, 12, 14341-14351. | 4.0 | 51 |
| 13 | 2D MoS ₂ -Based Threshold Switching Memristor for Artificial Neuron. IEEE Electron Device Letters, 2020, 41, 936-939. | 2.2 | 64 |
| 14 | Ultrasensitive and ultrathin phototransistors and photonic synapses using perovskite quantum dots grown from graphene lattice. Science Advances, 2020, 6, eaay5225. | 4.7 | 178 |
| 15 | Two-Dimensional/Three-Dimensional Schottky Junction Photovoltaic Devices Realized by the Direct CVD Growth of vdW 2D PtSe ₂ Layers on Silicon. ACS Applied Materials & Interfaces, 2019, 11, 27251-27258. | 4.0 | 46 |
| 16 | Electronic synapses with near-linear weight update using MoS ₂ /graphene memristors. Applied Physics Letters, 2019, 115, . | 1.5 | 52 |
| 17 | 2D Materials: The Role of Graphene and Other 2D Materials in Solar Photovoltaics (Adv. Mater. 1/2019). Advanced Materials, 2019, 31, 1970006. | 11.1 | 8 |
| 18 | Novel mesoporous electrode materials for symmetric, asymmetric and hybrid supercapacitors. Nanotechnology, 2019, 30, 202001. | 1.3 | 75 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | The Role of Graphene and Other 2D Materials in Solar Photovoltaics. <i>Advanced Materials</i> , 2019, 31, e1802722. | 11.1 | 268 |
| 20 | A leaf-inspired photon management scheme using optically tuned bilayer nanoparticles for ultra-thin and highly efficient photovoltaic devices. <i>Nano Energy</i> , 2019, 58, 47-56. | 8.2 | 86 |
| 21 | Artificial Neuron using Vertical MoS ₂ /Graphene Threshold Switching Memristors. <i>Scientific Reports</i> , 2019, 9, 53. | 1.6 | 69 |
| 22 | Total-Ionizing-Dose Response of MoS ₂ Transistors With ZrO ₂ and h-BN Gate Dielectrics. <i>IEEE Transactions on Nuclear Science</i> , 2019, 66, 1584-1591. | 1.2 | 6 |
| 23 | Uniform Vapor-Pressure-Based Chemical Vapor Deposition Growth of MoS ₂ Using MoO ₃ Thin Film as a Precursor for Coevaporation. <i>ACS Omega</i> , 2018, 3, 18943-18949. | 1.6 | 30 |
| 24 | Centimeter-Scale Periodically Corrugated Few-Layer 2D MoS ₂ with Tensile Stretch-Driven Tunable Multifunctionalities. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 30623-30630. | 4.0 | 21 |
| 25 | High quality gate dielectric/MoS ₂ interfaces probed by the conductance method. <i>Applied Physics Letters</i> , 2018, 112, . | 1.5 | 19 |
| 26 | Centimeter-Scale 2D van der Waals Vertical Heterostructures Integrated on Deformable Substrates Enabled by Gold Sacrificial Layer-Assisted Growth. <i>Nano Letters</i> , 2017, 17, 6157-6165. | 4.5 | 28 |
| 27 | 2D-2D tunneling field-effect transistors using WSe ₂ /SnSe ₂ heterostructures. <i>Applied Physics Letters</i> , 2016, 108, . | 1.5 | 252 |
| 28 | 2D layered materials: From materials properties to device applications. , 2015, , . | | 9 |
| 29 | Dual-Gated MoS ₂ /WSe ₂ van der Waals Tunnel Diodes and Transistors. <i>ACS Nano</i> , 2015, 9, 2071-2079. | 7.3 | 560 |
| 30 | Engineering Light Outcoupling in 2D Materials. <i>Nano Letters</i> , 2015, 15, 1356-1361. | 4.5 | 138 |
| 31 | Field-Effect Transistors Built from All Two-Dimensional Material Components. <i>ACS Nano</i> , 2014, 8, 6259-6264. | 7.3 | 582 |