

# Ahin Roy

## List of Publications by Year in descending order

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36  
papers

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citations

686830

13  
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642321

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43  
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docs citations

43  
times ranked

897  
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#	ARTICLE	IF	CITATIONS
1	Covalently interconnected transition metal dichalcogenide networks via defect engineering for high-performance electronic devices. <i>Nature Nanotechnology</i> , 2021, 16, 592-598.	15.6	74
2	Charge transport mechanisms in inkjet-printed thin-film transistors based on two-dimensional materials. <i>Nature Electronics</i> , 2021, 4, 893-905.	13.1	52
3	Production of Quasi-2D Platelets of Nonlayered Iron Pyrite (FeS <sub>2</sub> ) by Liquid-Phase Exfoliation for High Performance Battery Electrodes. <i>ACS Nano</i> , 2020, 14, 13418-13432.	7.3	45
4	Synthesis of Hollow Nanotubes of Zn <sub>2</sub> SiO <sub>4</sub> or SiO <sub>2</sub> : Mechanistic Understanding and Uranium Adsorption Behavior. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 26430-26436.	4.0	39
5	Wrinkling of Atomic Planes in Ultrathin Au Nanowires. <i>Nano Letters</i> , 2014, 14, 4859-4866.	4.5	35
6	Insights into nucleation, growth and phase selection of WO <sub>3</sub> : morphology control and electrochromic properties. <i>Journal of Materials Chemistry C</i> , 2017, 5, 7307-7316.	2.7	34
7	Ultra-high sensitivity infra-red detection and temperature effects in a graphene-tellurium nanowire binary hybrid. <i>Nanoscale</i> , 2017, 9, 9284-9290.	2.8	31
8	Morphology controlled synthesis of low bandgap SnSe <sub>2</sub> with high photodetectivity. <i>Nanoscale</i> , 2019, 11, 870-877.	2.8	31
9	Fluorophosphates as Efficient Bifunctional Electrocatalysts for Metal-Air Batteries. <i>ACS Catalysis</i> , 2020, 10, 43-50.	5.5	29
10	Phase & morphology engineered surface reducibility of MnO <sub>2</sub> nano-heterostructures: Implications on catalytic activity towards CO oxidation. <i>Materials Research Bulletin</i> , 2020, 121, 110615.	2.7	27
11	Single crystalline ultrathin gold nanowires: Promising nanoscale interconnects. <i>AIP Advances</i> , 2013, 3, .	0.6	25
12	Semiconductor-like Sensitivity in Metallic Ultrathin Gold Nanowire-Based Sensors. <i>Journal of Physical Chemistry C</i> , 2014, 118, 18676-18682.	1.5	17
13	Liquid phase exfoliation of nonlayered non-van der Waals iron trifluoride (FeF <sub>3</sub> ) into 2D-platelets for high-capacity lithium storing cathodes. <i>FlatChem</i> , 2022, 33, 100360.	2.8	15
14	Reduced SrTiO <sub>3</sub> -supported Pt-Cu alloy nanoparticles for preferential oxidation of CO in excess hydrogen. <i>Nanoscale</i> , 2019, 11, 22423-22431.	2.8	13
15	Postsynthetic treatment of nickel-iron layered double hydroxides for the optimum catalysis of the oxygen evolution reaction. <i>Npj 2D Materials and Applications</i> , 2021, 5, .	3.9	12
16	Scalable faceted voids with luminescent enhanced edges in WS <sub>2</sub> monolayers. <i>Nanoscale</i> , 2018, 10, 16321-16331.	2.8	11
17	Extending the Cyclability of Alkaline Zinc-Air Batteries: Synergistic Roles of Li <sup>+</sup> and K <sup>+</sup> Ions in Electrodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 33112-33122.	4.0	11
18	Manipulation of Optoelectronic Properties and Band Structure Engineering of Ultrathin Te Nanowires by Chemical Adsorption. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 19462-19469.	4.0	9

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19	Thermal History-Dependent Current Relaxation in hBN/MoS <sub>2</sub> van der Waals Dimers. ACS Nano, 2020, 14, 5909-5916.	7.3	9
20	One-Step Grown Carbonaceous Germanium Nanowires and Their Application as Highly Efficient Lithium-Ion Battery Anodes. ACS Applied Energy Materials, 2022, 5, 1922-1932.	2.5	9
21	Nanostructural characterization of artificial pinning centers in PLD-processed REBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> films. Ultramicroscopy, 2017, 176, 151-160.	0.8	8
22	Removal of U(VI) from aqueous solution by adsorption onto synthesized silica and zinc silicate nanotubes: Equilibrium and kinetic aspects with application to real samples. Environmental Nanotechnology, Monitoring and Management, 2018, 10, 127-139.	1.7	8
23	Ba-addition induced enhanced surface reducibility of SrTiO <sub>3</sub> : implications on catalytic aspects. Nanoscale Advances, 2019, 1, 4938-4946.	2.2	7
24	Negative differential resistance in armchair silicene nanoribbons. Nanotechnology, 2017, 28, 275402.	1.3	6
25	2D nanosheets from foolâ€™s gold by LPE: High performance lithium-ion battery anodes made from stone. FlatChem, 2021, 30, 100295.	2.8	6
26	Polymorphic In-Plane Heterostructures of Monolayer WS <sub>2</sub> for Light-Triggered Field-Effect Transistors. ACS Applied Nano Materials, 2020, 3, 3750-3759.	2.4	5
27	Effect of ambient on electrical transport properties of ultra-thin Au nanowires. Applied Physics Letters, 2016, 109, 253108.	1.5	4
28	Growth and analysis of the tetragonal (ST12) germanium nanowires. Nanoscale, 2022, 14, 2030-2040.	2.8	3
29	Carrier Dynamics in Ultrathin Gold Nanowires: Role of Auger Processes. Plasmonics, 2020, 15, 1151-1158.	1.8	2
30	Mechanistic Understanding of Formation of Ultrathin Single-Crystalline Pt Nanowires. Journal of Physical Chemistry C, 0, , .	1.5	2
31	Ambient Dependent Formation of Zn <sub>2</sub> SiO <sub>4</sub> and SiO <sub>2</sub> from Core-shell ZnO@SiO <sub>2</sub> . Microscopy and Microanalysis, 2017, 23, 1758-1759.	0.2	1
32	Transmission Electron Microscopic Analysis of One-dimensional Metal Nanowire: The Case of Tellurium and Gold. Materia Japan, 2016, 55, 603-603.	0.1	0
33	Wet-chemical Synthesis of Electrochromic WO <sub>3</sub> and W <sub>x</sub> Mo <sub>1-x</sub> O <sub>3</sub> Nanomaterials with Phase and Morphology Control. Microscopy and Microanalysis, 2017, 23, 1876-1877.	0.2	0
34	Morphology Controlled Low-dimensional Single-crystalline SnSe <sub>2</sub> -graphene Hybrid for near IR Photodetection. Microscopy and Microanalysis, 2020, 26, 2338-2340.	0.2	0
35	Mechanistic Studies of Growth of Ultrathin Pt and Alloy Nanowires. Microscopy and Microanalysis, 2020, 26, 2400-2401.	0.2	0
36	Characterisation and Defect Analysis of 2D Layered Ternary Chalcogenides. Microscopy and Microanalysis, 2021, 27, 642-643.	0.2	0