David Estrada

List of Publications by Year in descending order

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50 papers	2,771 citations	257357 24 h-index	254106 43 g-index
51 all docs	51 docs citations	51 times ranked	5056 citing authors

#	Article	IF	Citations
1	Low-Power Switching of Phase-Change Materials with Carbon Nanotube Electrodes. Science, 2011, 332, 568-570.	6.0	474
2	Stretchable, Transparent Graphene Interconnects for Arrays of Microscale Inorganic Light Emitting Diodes on Rubber Substrates. Nano Letters, 2011, 11, 3881-3886.	4.5	307
3	Stacked Graphene-Al₂O₃ Nanopore Sensors for Sensitive Detection of DNA and DNAâ€“Protein Complexes. ACS Nano, 2012, 6, 441-450.	7.3	189
4	Polycrystalline Graphene Ribbons as Chemiresistors. Advanced Materials, 2012, 24, 53-57.	11.1	177
5	Imaging, Simulation, and Electrostatic Control of Power Dissipation in Graphene Devices. Nano Letters, 2010, 10, 4787-4793.	4.5	163
6	High-performance and flexible thermoelectric films by screen printing solution-processed nanoplate crystals. Scientific Reports, 2016, 6, 33135.	1.6	141
7	Atomic-Scale Evidence for Potential Barriers and Strong Carrier Scattering at Graphene Grain Boundaries: A Scanning Tunneling Microscopy Study. ACS Nano, 2013, 7, 75-86.	7.3	132
8	Electrochemistry at the Edge of a Single Graphene Layer in a Nanopore. ACS Nano, 2013, 7, 834-843.	7.3	105
9	Reduction of hysteresis for carbon nanotube mobility measurements using pulsed characterization. Nanotechnology, 2010, 21, 085702.	1.3	100
10	Flexible Thermoelectric Devices of Ultrahigh Power Factor by Scalable Printing and Interface Engineering. Advanced Functional Materials, 2020, 30, 1905796.	7.8	93
11	Bimodal Phonon Scattering in Graphene Grain Boundaries. Nano Letters, 2015, 15, 4532-4540.	4.5	81
12	Imaging dissipation and hot spots in carbon nanotube network transistors. Applied Physics Letters, 2011, 98, .	1.5	66
13	Graphene Foam as a Three-Dimensional Platform for Myotube Growth. ACS Biomaterials Science and Engineering, 2016, 2, 1234-1241.	2.6	64
14	Effect of carbon nanotube network morphology on thin film transistor performance. Nano Research, 2012, 5, 307-319.	5.8	59
15	A Review of Inkjet Printed Graphene and Carbon Nanotubes Based Gas Sensors. Sensors, 2020, 20, 5642.	2.1	53
16	Chemical sensors based on randomly stacked graphene flakes. Applied Physics Letters, 2012, 100, .	1.5	49
17	Direct observation of resistive heating at graphene wrinkles and grain boundaries. Applied Physics Letters, 2014, 105, .	1.5	47
18	Thermal conductivity of chirality-sorted carbon nanotube networks. Applied Physics Letters, 2016, 108, .	1.5	38

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19	Nanosoldering Carbon Nanotube Junctions by Local Chemical Vapor Deposition for Improved Device Performance. Nano Letters, 2013, 13, 5844-5850.	4.5	36
20	High-Field Transport and Thermal Reliability of Sorted Carbon Nanotube Network Devices. ACS Nano, 2013, 7, 482-490.	7.3	35
21	Detection of methylation on dsDNA using nanopores in a MoS₂ membrane. Nanoscale, 2017, 9, 14836-14845.	2.8	34
22	The sp2-sp3 carbon hybridization content of nanocrystalline graphite from pyrolyzed vegetable oil, comparison of electrochemistry and physical properties with other carbon forms and allotropes. Carbon, 2019, 144, 831-840.	5.4	30
23	Thermal transport in layer-by-layer assembled polycrystalline graphene films. Npj 2D Materials and Applications, 2019, 3, .	3.9	28
24	Highâ€Performance Flexible Bismuth Telluride Thin Film from Solution Processed Colloidal Nanoplates. Advanced Materials Technologies, 2020, 5, 2000600.	3.0	26
25	Mechanical Properties of Graphene Foam and Graphene Foamâ€”Tissue Composites. Advanced Engineering Materials, 2018, 20, 1800166.	1.6	25
26	Electrical Transport and Power Dissipation in Aerosol-Jet-Printed Graphene Interconnects. Scientific Reports, 2018, 8, 10842.	1.6	25
27	Aerosol jet printed capacitive strain gauge for soft structural materials. Npj Flexible Electronics, 2020, 4, .	5.1	23
28	Synergic Antitumor Effect of Photodynamic Therapy and Chemotherapy Mediated by Nano Drug Delivery Systems. Pharmaceutics, 2022, 14, 322.	2.0	22
29	Prechondrogenic ATDC5 Cell Attachment and Differentiation on Graphene Foam; Modulation by Surface Functionalization with Fibronectin. ACS Applied Materials & Interfaces, 2019, 11, 41906-41924.	4.0	17
30	Fully inkjet-printed multilayered graphene-based flexible electrodes for repeatable electrochemical response. RSC Advances, 2020, 10, 38205-38219.	1.7	17
31	Solution-Mediated Selective Nanosoldering of Carbon Nanotube Junctions for Improved Device Performance. ACS Nano, 2015, 9, 4806-4813.	7.3	16
32	Impact of thermal boundary conductances on power dissipation and electrical breakdown of carbon nanotube network transistors. Journal of Applied Physics, 2012, 112, 124506.	1.1	13
33	High field breakdown characteristics of carbon nanotube thin film transistors. Nanotechnology, 2013, 24, 405204.	1.3	13
34	Modeling and Analysis of Intercalant Effects on Circular DNA Conformation. ACS Nano, 2016, 10, 8910-8917.	7.3	12
35	Tip-based nanofabrication of arbitrary shapes of graphene nanoribbons for device applications. RSC Advances, 2015, 5, 37006-37012.	1.7	10
36	A parametric study for in-pile use of the thermal conductivity needle probe using a transient, multilayered analytical model. International Journal of Thermal Sciences, 2019, 145, 106028.	2.6	9

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37	Removal and recovery of ammonia from simulated wastewater using Ti3C2Tx MXene in flow electrode capacitive deionization. Npj Clean Water, 2022, 5, .	3.1	9
38	Avalanche, joule breakdown and hysteresis in carbon nanotube transistors. , 2009, , .		8
39	Open-source automated chemical vapor deposition system for the production of two- dimensional nanomaterials. PLoS ONE, 2019, 14, e0210817.	1.1	7
40	Mechanochemical conversion kinetics of red to black phosphorus and scaling parameters for high volume synthesis. Npj 2D Materials and Applications, 2020, 4, .	3.9	7
41	Measurement of Signalâ€toâ€Noise Ratio In Grapheneâ€based Passive Microelectrode Arrays. Electroanalysis, 2019, 31, 991-1001.	1.5	3
42	Graphene Sensors: Polycrystalline Graphene Ribbons as Chemiresistors (Adv. Mater. 1/2012). Advanced Materials, 2012, 24, 52-52.	11.1	2
43	Additive Manufacturing of Miniaturized Peak Temperature Monitors for In-Pile Applications. Sensors, 2021, 21, 7688.	2.1	2
44	Atomic-scale study of scattering and electronic properties of CVD graphene grain boundaries. , 2012, , .		1
45	Utilizing a Single Silica Nanospring as an Insulating Support to Characterize the Electrical Transport and Morphology of Nanocrystalline Graphite. Materials, 2019, 12, 3794.	1.3	1
46	Production and Characterization of Graphene and Other 2-dimensional Nanomaterials: An AP High School Inquiry Lab (Curriculum Exchange). , 2015, , 26.1257.1.		0
47	Tailored I<inf>ON</inf>/I<inf>OFF</inf> ratio of nanotube network transistors by pulsed breakdown. , 2009, , .		0
48	Nanoscale power and heat management in electronics. , 2012, , .		0
49	Nanosoldering carbon nanotube junctions with metal via local chemical vapor deposition for improved device performance. , 2012, , .		0
50	Defect limited reliability and transport in carbon nanotube and graphene devices. , 2015, , .		0