Deblina Sarkar

List of Publications by Year
in descending order

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32	4,727	361045	713013
papers	citations	20 h-index	21 g-index

35	35	35	7392
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	NEMS Sensors Based on Novel Nanomaterials. , 2022, , 133-185.		1
2	2D material based field effect transistors and nanoelectromechanical systems for sensing applications. IScience, 2021, 24, 103513.	1.9	21
3	Designing band-to-band tunneling field-effect transistors with 2D semiconductors for next-generation low-power VLSI. , 2015, , .		18
4	Functionalization of Transition Metal Dichalcogenides with Metallic Nanoparticles: Implications for Doping and Gas-Sensing. Nano Letters, 2015, 15, 2852-2862.	4.5	329
5	Impact of Contact on the Operation and Performance of Back-Gated Monolayer MoS₂ Field-Effect-Transistors. ACS Nano, 2015, 9, 7904-7912.	7.3	137
6	A subthermionic tunnel field-effect transistor with an atomically thin channel. Nature, 2015, 526, 91-95.	13.7	793
7	2D Semiconductor FETsâ€”Projections and Design for Sub-10 nm VLSI. IEEE Transactions on Electron Devices, 2015, 62, 3459-3469.	1.6	240
8	Subthreshold-swing physics of tunnel field-effect transistors. AIP Advances, 2014, 4, .	0.6	54
9	Graphene and beyond-graphene 2D crystals for next-generation green electronics. Proceedings of SPIE, 2014, , .	0.8	37
10	Performance evaluation and design considerations of 2D semiconductor based FETs for sub-10 nm VLSI. , 2014, , .		20
11	Graphene inductors for high-frequency applications - design, fabrication, characterization, and study of skin effect. , 2014, , .		11
12	MoS₂ Field-Effect Transistor for Next-Generation Label-Free Biosensors. ACS Nano, 2014, 8, 3992-4003.	7.3	870
13	Controllable and Rapid Synthesis of High-Quality and Large-Area Bernal Stacked Bilayer Graphene Using Chemical Vapor Deposition. Chemistry of Materials, 2014, 26, 907-915.	3.2	135
14	Computational Study of Metal Contacts to Monolayer Transition-Metal Dichalcogenide Semiconductors. Physical Review X, 2014, 4, .	2.8	429
15	Low-Frequency Noise in Bilayer MoS₂ Transistor. ACS Nano, 2014, 8, 5633-5640.	7.3	89
16	Proposal for all-graphene monolithic logic circuits. Applied Physics Letters, 2013, 103, .	1.5	60
17	2D electronics: Graphene and beyond. , 2013, , .		17
18	2-Dimensional tunnel devices and circuits on graphene: Opportunities and challenges. , 2013, , .		0

#	Article	IF	Citations
19	Role of Metal Contacts in Designing High-Performance Monolayer n-Type WSe₂ Field Effect Transistors. Nano Letters, 2013, 13, 1983-1990.	4.5	833
20	Impact-ionization field-effect-transistor based biosensors for ultra-sensitive detection of biomolecules. Applied Physics Letters, 2013, 102, .	1.5	21
21	Tunnel-field-effect-transistor based gas-sensor: Introducing gas detection with a quantum-mechanical transducer. Applied Physics Letters, 2013, 102, .	1.5	59
22	A computational study of metal-contacts to beyond-graphene 2D semiconductor materials. , 2012, , .		38
23	Fundamental limitations of conventional-FET biosensors: Quantum-mechanical-tunneling to the rescue. , 2012, , .		73
24	Proposal for tunnel-field-effect-transistor as ultra-sensitive and label-free biosensors. Applied Physics Letters, 2012, 100, .	1.5	206
25	Vertically Stacked and Independently Controlled Twin-Gate MOSFETs on a Single Si Nanowire. IEEE Electron Device Letters, 2011, 32, 1492-1494.	2.2	27
26	High-Frequency Behavior of Graphene-Based Interconnectsâ€”Part I: Impedance Modeling. IEEE Transactions on Electron Devices, 2011, 58, 843-852.	1.6	65
27	High-Frequency Behavior of Graphene-Based Interconnectsâ€”Part II: Impedance Analysis and Implications for Inductor Design. IEEE Transactions on Electron Devices, 2011, 58, 853-859.	1.6	50
28	Prospects of carbon nanomaterials for next-generation green electronics. , 2010, , .		5
29	A quantitative inquisition into ESD sensitivity to strain in nanoscale CMOS protection devices. , 2010, , .		1
30	Electron-hole duality during band-to-band tunneling process in graphene-nanoribbon tunnel-field-effect-transistors. Applied Physics Letters, 2010, 97, .	1.5	37
31	AC conductance modeling and analysis of graphene nanoribbon interconnects. , 2010, , .		2
32	A Novel Enhanced Electric-Field Impact-Ionization MOS Transistor. IEEE Electron Device Letters, 2010, 31, 1175-1177.	2.2	30