JÃ¶rg Schuster

List of Publications by Year
in descending order

63 papers	1,023 citations	430754 18 h-index	454834 30 g-index
64 all docs	64 docs citations	64 times ranked	1177 citing authors

#	Article	IF	Citations
1	Spectroscopy on Single Light-Harvesting Complexes at Low Temperature. Journal of Physical Chemistry B, 1999, 103, 6328-6333.	1.2	91
2	Reorientation and translation of individual dye molecules in a polymer matrix. European Polymer Journal, 2004, 40, 1019-1026.	2.6	82
3	Influence of self-trapped states on the fluorescence intermittency of single molecules. Applied Physics Letters, 2005, 87, 051915.	1.5	69
4	FRET and ligand related NON-FRET processes in single quantum dot-perylene bisimide assemblies. Physical Chemistry Chemical Physics, 2010, 12, 4112.	1.3	64
5	Blinking of single molecules in various environments. Optics and Spectroscopy (English Translation) Tj ETQq1 1 0.784314 rgBT /Overl	0.2	58
6	Electrical Conductivity Modeling of Graphene-based Conductor Materials. ACS Applied Materials & Interfaces, 2018, 10, 43088-43094.	4.0	35
7	Photoinduced hole trapping in single semiconductor quantum dots at specific sites at silicon oxide interfaces. Physical Chemistry Chemical Physics, 2011, 13, 17084.	1.3	34
8	Surface chemistry of copper metal and copper oxide atomic layer deposition from copper(<scp>ii</scp>) acetylacetonate: a combined first-principles and reactive molecular dynamics study. Physical Chemistry Chemical Physics, 2015, 17, 26892-26902.	1.3	34
9	Metallic carbon nanotubes with metal contacts: electronic structure and transport. Nanotechnology, 2014, 25, 425203.	1.3	30
10	Diffusion Measurements by Single-Molecule Spot-Size Analysis. Journal of Physical Chemistry A, 2002, 106, 5403-5406.	1.1	29
11	Identification of Different Donor-Acceptor Structures via FÃ¶rster Resonance Energy Transfer (FRET) in Quantum-Dot-Perylene Bisimide Assemblies. International Journal of Molecular Sciences, 2009, 10, 5239-5256.	1.8	28
12	Transport in carbon nanotubes: Contact models and size effects. Physica Status Solidi (B): Basic Research, 2010, 247, 3002-3005.	0.7	28
13	Optical detection of heterogeneous single molecule diffusion in thin liquid crystal films. Physical Chemistry Chemical Physics, 2010, 12, 11555.	1.3	27
14	Diffusion of Single Molecules Close to Interfaces. Single Molecules, 2000, 1, 299-305.	1.6	26
15	Influence of mesoscopic structures on single molecule dynamics in thin smectic liquid crystal films. Soft Matter, 2011, 7, 7431.	1.2	24
16	Diffusion in ultrathin liquid films. European Polymer Journal, 2004, 40, 993-999.	2.6	22
17	Discrimination of photoblinking and photobleaching on the single molecule level. Journal of Luminescence, 2007, 127, 224-229.	1.5	21
18	Optimized Monolithic 2-D Spin-Valve Sensor for High-Sensitivity Compass Applications. IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	21

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19	Ferrocenylâ€Pyrenes, Ferrocenylâ€9,10â€Phenanthrenediones, and Ferrocenylâ€9,10â€Dimethoxyphenanthrenes: Chargeâ€Transfer Studies and SWCNT Functionalization. Chemistry - A European Journal, 2020, 26, 2635-2652.	1.7	18
20	Restricted conformation dynamics of single functionalized perylene bisimide molecules on SiO2surfaces and in thin polymer films. Molecular Physics, 2009, 107, 1911-1921.	0.8	16
21	Towards Reconfigurable Electronics: Silicidation of Top-Down Fabricated Silicon Nanowires. Applied Sciences (Switzerland), 2019, 9, 3462.	1.3	16
22	Electronic transport in metallic carbon nanotubes with mixed defects within the strong localization regime. Computational Materials Science, 2017, 138, 49-57.	1.4	15
23	Feasible Device Architectures for Ultrascaled CNTFETs. IEEE Nanotechnology Magazine, 2018, 17, 100-107.	1.1	14
24	Extended HÃ¼ckel Theory for Carbon Nanotubes: Band Structure and Transport Properties. Journal of Physical Chemistry A, 2013, 117, 3650-3654.	1.1	13
25	DFT investigations of the piezoresistive effect of carbon nanotubes for sensor application. Physica Status Solidi (B): Basic Research, 2012, 249, 2450-2453.	0.7	12
26	Strong localization in defective carbon nanotubes: a recursive GreenÊ¼s function study. New Journal of Physics, 2014, 16, 123026.	1.2	12
27	Interaction between carbon nanotubes and metals: Electronic properties, stability, and sensing. Microelectronic Engineering, 2015, 137, 124-129.	1.1	12
28	Carbon Nanotubes for Mechanical Sensor Applications. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900584.	0.8	12
29	Comparison of quantum mechanical methods for the simulation of electronic transport through carbon nanotubes. Microelectronic Engineering, 2013, 106, 100-105.	1.1	11
30	Simulation of ALD chemistry of (nBu3P)2Cu(acac) and Cu(acac)2 precursors on Ta(110) surface. Microelectronic Engineering, 2015, 137, 23-31.	1.1	11
31	Multiparameter and Parallel Optimization of ReaxFF Reactive Force Field for Modeling the Atomic Layer Deposition of Copper. Journal of Physical Chemistry C, 2017, 121, 28077-28089.	1.5	10
32	Strain and screening: Optical properties of a small-diameter carbon nanotube from first principles. Physical Review B, 2019, 99, .	1.1	10
33	Correlation spectroscopy of individual molecules immobilized on surfaces under ambient conditions. Chemical Physics Letters, 1998, 282, 164-170.	1.2	9
34	Improved recursive Green's function formalism for quasi one-dimensional systems with realistic defects. Journal of Computational Physics, 2017, 334, 607-619.	1.9	9
35	Empirical transport model of strained CNT transistors used for sensor applications. Journal of Computational Electronics, 2016, 15, 881-890.	1.3	8
36	Elastic and piezoresistive properties of nickel carbides from first principles. Physical Review B, 2017, 95, .	1.1	8

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37	Sensitivity control of carbon nanotube-based piezoresistive sensors by drain-induced barrier thinning. Sensors and Actuators A: Physical, 2019, 295, 288-295.	2.0	8
38	Quantifying the influence of graphene film nanostructure on the macroscopic electrical conductivity. Nano Express, 2020, 1, 020035.	1.2	8
39	Electron transport through NiSi₂â€“Si contacts and their role in reconfigurable field-effect transistors. Journal of Physics Condensed Matter, 2019, 31, 355002.	0.7	7
40	Formation and crystallographic orientation of NiSi2â€“Si interfaces. Journal of Applied Physics, 2020, 128, 085301.	1.1	7
41	Radially resolved electronic structure and charge carrier transport in silicon nanowires. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 108, 181-186.	1.3	6
42	Influence of defect-induced deformations on electron transport in carbon nanotubes. Journal of Physics Communications, 2018, 2, 115023.	0.5	5
43	Giant Piezoelectricity of Deformed Aluminum Nitride Stabilized through Noble Gas Interstitials for Energy Efficient Resonators. Advanced Electronic Materials, 2021, 7, 2100358.	2.6	5
44	Electrical Characterization of Germanium Nanowires Using a Symmetric Hall Bar Configuration: Size and Shape Dependence. Nanomaterials, 2021, 11, 2917.	1.9	5
45	Electronic transport through defective semiconducting carbon nanotubes. Journal of Physics Communications, 2018, 2, 105012.	0.5	4
46	Computationally efficient simulation method for conductivity modeling of 2D-based conductors. Computational Materials Science, 2019, 161, 364-370.	1.4	4
47	Theoretical investigation of an in situ k-restore process for damaged ultra-low-k materials based on plasma enhanced fragmentation. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2015, 33, 052203.	0.6	3
48	Comparison of atomistic quantum transport and numerical device simulation for carbon nanotube field-effect transistors. , 2016, , .		3
49	Ab initio study of the trimethylaluminum atomic layer deposition process on carbon nanotubesâ€"An alternative initial step. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, 01B113.	0.9	3
50	Nanomechanics of CNTs for sensor application. , 2012, , .		2
51	System-level-model development of an SWCNT based piezoresistive sensor in VHDL-AMS. , 2014, , .		2
52	Giant Piezoelectricity of Deformed Aluminum Nitride Stabilized through Noble Gas Interstitials for Energy Efficient Resonators (Adv. Electron. Mater. 8/2021). Advanced Electronic Materials, 2021, 7, 2170032.	2.6	2
53	<title>Variation of power-law dynamics caused by dark state recovery of fluorescence intermittency of a single quantum system</title>. , 2006, , .		2
54	Chemical Mechanism of AlF₃ Etching during AlMe₃ Exposure: A Thermodynamic and DFT Study. Journal of Physical Chemistry C, 2022, 126, 7410-7420.	1.5	2

#	ARTICLE	IF	CITATIONS
55	Band gap tuning of carbon nanotubes for sensor and interconnect applications — A quantum simulation study. , 2012, , .		1
56	Modeling and simulation of the interplay between contact metallization and stress liner technologies for strained silicon. Microelectronic Engineering, 2013, 107, 161-166.	1.1	1
57	Theoretical investigation of in situ k-restore processes for damaged ultra-low-k materials. , 2015, , .		1
58	Theoretical investigation of in situ k-restore processes for damaged ultra-low-k dielectrics. Microelectronic Engineering, 2016, 156, 121-125.	1.1	1
59	An improved Greenâ€™s function algorithm applied to quantum transport in carbon nanotubes. Computational Materials Science, 2019, 169, 109014.	1.4	1
60	Anisotropic transport properties of graphene-based conductor materials. Journal of Materials Science, 2021, 56, 14624-14631.	1.7	1
61	Simulation of nanostructures for sensor and circuit applications. , 2012, , .		0
62	Role of Contacts In Carbon Nanotube Giant Piezoresistive Sensors. , 2019, , .		0
63	Optimization of synthetic jet actuation by analytical modeling. Aircraft Engineering and Aerospace Technology, 2021, 93, 558-565.	0.7	0