Vincent Derycke

List of Publications by Year
in descending order

50 papers	5,683 citations	257450 24 h-index	206112 48 g-index
50 all docs	50 docs citations	50 times ranked	5604 citing authors

#	Article	IF	Citations
1	Carbon Nanotubes as Schottky Barrier Transistors. Physical Review Letters, 2002, 89, 106801.	7.8	1,111
2	Ambipolar Electrical Transport in Semiconducting Single-Wall Carbon Nanotubes. Physical Review Letters, 2001, 87, 256805.	7.8	701
3	Controlling doping and carrier injection in carbon nanotube transistors. Applied Physics Letters, 2002, 80, 2773-2775.	3.3	623
4	Vertical scaling of carbon nanotube field-effect transistors using top gate electrodes. Applied Physics Letters, 2002, 80, 3817-3819.	3.3	622
5	Field-Modulated Carrier Transport in Carbon Nanotube Transistors. Physical Review Letters, 2002, 89, 126801.	7.8	384
6	Room-temperature ferromagnetic nanotubes controlled by electron or hole doping. Nature, 2004, 431, 672-676.	27.8	231
7	Carbon Nanotube-Templated Synthesis of Covalent Porphyrin Network for Oxygen Reduction Reaction. Journal of the American Chemical Society, 2014, 136, 6348-6354.	13.7	231
8	80 GHz field-effect transistors produced using high purity semiconducting single-walled carbon nanotubes. Applied Physics Letters, 2009, 94, .	3.3	153
9	Optoelectronic Switch and Memory Devices Based on Polymer-Functionalized Carbon Nanotube Transistors. Advanced Materials, 2006, 18, 2535-2540.	21.0	142
10	Flexible Gigahertz Transistors Derived from Solution-Based Single-Layer Graphene. Nano Letters, 2012, 12, 1184-1188.	9.1	133
11	Carbon nanotube electronics. IEEE Nanotechnology Magazine, 2002, 1, 184-189.	2.0	127
12	Chemical Optimization of Self-Assembled Carbon Nanotube Transistors. Nano Letters, 2005, 5, 451-455.	9.1	127
13	Nanochemistry at the atomic scale revealed in hydrogen-induced semiconductor surface metallization. Nature Materials, 2003, 2, 253-258.	27.5	125
14	Catalyst-Free Growth of Ordered Single-Walled Carbon Nanotube Networks. Nano Letters, 2002, 2, 1043-1046.	9.1	110
15	Intrinsic current gain cutoff frequency of 30GHz with carbon nanotube transistors. Applied Physics Letters, 2007, 90, 233108.	3.3	102
16	Carbon nanotube transistors and logic circuits. Physica B: Condensed Matter, 2002, 323, 6-14.	2.7	97
17	Twoâ€Terminal Carbon Nanotube Programmable Devices for Adaptive Architectures. Advanced Materials, 2010, 22, 702-706.	21.0	95
18	Self-assembled switches based on electroactuated multiwalled nanotubes. Applied Physics Letters, 2005, 87, 193107.	3.3	82

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19	Physical Realization of a Supervised Learning System Built with Organic Memristive Synapses. Scientific Reports, 2016, 6, 31932.	3.3	47
20	Functionalization of Carbon Nanotubes through Polymerization in Micelles: A Bridge between the Covalent and Noncovalent Methods. Chemistry of Materials, 2013, 25, 2700-2707.	6.7	42
21	Effect of Halide Ion Migration on the Electrical Properties of Methylammonium Lead Tri-Iodide Perovskite Solar Cells. Journal of Physical Chemistry C, 2019, 123, 17728-17734.	3.1	41
22	Neuromorphic function learning with carbon nanotube based synapses. Nanotechnology, 2013, 24, 384013.	2.6	37
23	Nanotube Transistors as Direct Probes of the Trap Dynamics at Dielectricâ˘Organic Interfaces of Interest in Organic Electronics and Solar Cells. Nano Letters, 2008, 8, 3619-3625.	9.1	30
24	Carbon nanotube chemistry and assembly for electronic devices. Comptes Rendus Physique, 2009, 10, 330-347.	0.9	28
25	Localized Reduction of Graphene Oxide by Electrogenerated Naphthalene Radical Anions and Subsequent Diazonium Electrografting. Journal of the American Chemical Society, 2014, 136, 4833-4836.	13.7	27
26	Contactless Surface Conductivity Mapping of Graphene Oxide Thin Films Deposited on Glass with Scanning Electrochemical Microscopy. Analytical Chemistry, 2013, 85, 1812-1818.	6.5	19
27	Backside absorbing layer microscopy: Watching graphene chemistry. Science Advances, 2017, 3, e1601724.	10.3	18
28	New Confinement Method for the Formation of Highly Aligned and Densely Packed Singleâ€Walled Carbon Nanotube Monolayers. Small, 2010, 6, 1488-1491.	10.0	17
29	Polarizationâ€Sensitive Singleâ€Wall Carbon Nanotubes Allâ€inâ€One Photodetecting and Emitting Device Working at 1.55 Âµm. Advanced Functional Materials, 2017, 27, 1702341.	14.9	17
30	Self-assembled molecular monolayers as ultrathin gate dielectric in carbon nanotube transistors. Applied Physics Letters, 2008, 93, .	3.3	15
31	Labile Diazo Chemistry for Efficient Silencing of Metallic Carbon Nanotubes. Chemistry - A European Journal, 2011, 17, 1415-1418.	3.3	14
32	Influence of Molecular Organization on the Electrical Characteristics of Ï€-Conjugated Self-Assembled Monolayers. Journal of Physical Chemistry C, 2015, 119, 5703-5713.	3.1	14
33	New Insights into the Electronic Transport of Reduced Graphene Oxide Using Scanning Electrochemical Microscopy. Journal of Physical Chemistry Letters, 2014, 5, 4162-4166.	4.6	13
34	Integrating Multiple Resistive Memory Devices on a Single Carbon Nanotube. Advanced Functional Materials, 2013, 23, 5631-5637.	14.9	12
35	Supervised learning with organic memristor devices and prospects for neural crossbar arrays. , 2015, , .		12
36	Versatile Wafer-Scale Technique for the Formation of Ultrasmooth and Thickness-Controlled Graphene Oxide Films Based on Very Large Flakes. ACS Applied Materials & Interfaces, 2015, 7, 21270-21277.	8.0	12

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37	A highly selective non-radical diazo coupling provides low cost semi-conducting carbon nanotubes. Carbon, 2014, 66, 246-258.	10.3	11
38	Highâ€Speed Programming of Nanowireâ€Gated Carbonâ€Nanotube Memory Devices. Small, 2010, 6, 2659-2663.	10.0	8
39	Electrografted Fluorinated Organic Ultrathin Film as Efficient Gate Dielectric in MoS₂ Transistors. Journal of Physical Chemistry C, 2016, 120, 9506-9510.	3.1	8
40	Atomic scale engineering of nanostructures at silicon carbide surfaces. Microelectronics Journal, 2005, 36, 969-976.	2.0	7
41	Electronic Transport of MoS₂ Monolayered Flakes Investigated by Scanning Electrochemical Microscopy. ChemPhysChem, 2017, 18, 2777-2781.	2.1	7
42	Ideal optical contrast for 2D material observation using bi-layer antireflection absorbing substrates. Nanoscale, 2019, 11, 6129-6135.	5.6	7
43	Nonlinear Characterization and Modeling of Carbon Nanotube Field-Effect Transistors. IEEE Transactions on Microwave Theory and Techniques, 2008, 56, 1505-1510.	4.6	6
44	Highly selective sorting of semiconducting single wall carbon nanotubes exhibiting light emission at telecom wavelengths. Nano Research, 2016, 9, 2478-2486.	10.4	6
45	Multiscaled Simulation Methodology for Neuro-Inspired Circuits Demonstrated with an Organic Memristor. IEEE Transactions on Multi-Scale Computing Systems, 2018, 4, 822-832.	2.4	6
46	Gramâ€scale carbon nanotubes as semiconducting material for highly versatile route of integration in plastic electronics. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 183-192.	1.8	2
47	(Invited) Backside Absorbing Layer Microscopy: A New Tool to Study the Optical, Chemical and Electrochemical Properties of 2D Materials. ECS Meeting Abstracts, 2020, MA2020-01, 742-742.	0.0	2
48	Recent Advances in Molecular Electronics Based on Carbon Nanotubes. Chimia, 2010, 64, 414.	0.6	1
49	Functional Model of Carbon Nanotube Programmable Resistors for Hybrid Nano/CMOS Circuit Design. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2009, , 105-110.	0.3	1
50	(Invited) Backside Absorbing Layer Microscopy: A New Tool to Study the Optical, Chemical and Electrochemical Properties of 2D Materials. ECS Meeting Abstracts, 2021, MA2021-01, 596-596.	0.0	0