Viera Skakalova

List of Publications by Year
in descending order

107 papers	5,250 citations	136740 32 h-index	85405 71 g-index
113 all docs	113 docs citations	113 times ranked	7745 citing authors

#	Article	IF	Citations
1	Accurate Measurement of Electron Beam Induced Displacement Cross Sections for Single-Layer Graphene. Physical Review Letters, 2012, 108, 196102.	2.9	383
2	Growth and properties of few-layer graphene prepared by chemical vapor deposition. Carbon, 2010, 48, 1088-1094.	5.4	333
3	Effect of SOCl2 Treatment on Electrical and Mechanical Properties of Single-Wall Carbon Nanotube Networks. Journal of the American Chemical Society, 2005, 127, 5125-5131.	6.6	330
4	Experimental analysis of charge redistribution dueÂto chemical bonding by high-resolution transmission electron microscopy. Nature Materials, 2011, 10, 209-215.	13.3	270
5	Diamond/carbon nanotube composites: Raman, FTIR and XPS spectroscopic studies. Carbon, 2017, 111, 54-61.	5.4	247
6	Direct Imaging of a Two-Dimensional Silica Glass on Graphene. Nano Letters, 2012, 12, 1081-1086.	4.5	236
7	Electronic transport in carbon nanotubes: From individual nanotubes to thin and thick networks. Physical Review B, 2006, 74, .	1.1	217
8	Hydrogen storage in carbon nanostructures. Journal of Alloys and Compounds, 2002, 330-332, 654-658.	2.8	215
9	Effect of Chemical Treatment on Electrical Conductivity, Infrared Absorption, and Raman Spectra of Single-Walled Carbon Nanotubes. Journal of Physical Chemistry B, 2005, 109, 7174-7181.	1.2	204
10	Electronic conduction in polymers, carbon nanotubes and graphene. Chemical Society Reviews, 2011, 40, 3786.	18.7	186
11	Atom-by-Atom Observation of Grain Boundary Migration in Graphene. Nano Letters, 2012, 12, 3168-3173.	4.5	178
12	Raman Scattering at Pure Graphene Zigzag Edges. Nano Letters, 2010, 10, 4544-4548.	4.5	166
13	Size and Purity Control of HPHT Nanodiamonds down to 1 nm. Journal of Physical Chemistry C, 2015, 119, 27708-27720.	1.5	144
14	Atomistic Description of Electron Beam Damage in Nitrogen-Doped Graphene and Single-Walled Carbon Nanotubes. ACS Nano, 2012, 6, 8837-8846.	7.3	119
15	Electrical and mechanical properties of nanocomposites of single wall carbon nanotubes with PMMA. Synthetic Metals, 2005, 152, 349-352.	2.1	116
16	Hydrogen storage in carbon nanotubes. Comptes Rendus Physique, 2003, 4, 1055-1062.	0.3	104
17	Synthesis and characterization of carbon nanotube-conducting polymer thin films. Diamond and Related Materials, 2004, 13, 256-260.	1.8	94
18	Raman spectroscopy of single-wall carbon nanotubes and graphite irradiated by Î³ rays. Journal of Applied Physics, 2005, 98, 024311.	1.1	80

#	Article	IF	Citations
19	Defects in bilayer silica and graphene: common trends in diverse hexagonal two-dimensional systems. Scientific Reports, 2013, 3, 3482.	1.6	80
20	Gamma-irradiated and functionalized single wall nanotubes. Diamond and Related Materials, 2004, 13, 296-298.	1.8	73
21	Computational insights and the observation of SiC nanograin assembly: towards 2D silicon carbide. Scientific Reports, 2017, 7, 4399.	1.6	73
22	Biomass waste-carbon/reduced graphene oxide composite electrodes for enhanced supercapacitors. Electrochimica Acta, 2019, 298, 910-917.	2.6	68
23	High-yield fabrication and properties of 1.4â€‰nm nanodiamonds with narrow size distribution. Scientific Reports, 2016, 6, 38419.	1.6	63
24	Electrical properties of transparent carbon nanotube networks prepared through different techniques. Physica Status Solidi - Rapid Research Letters, 2007, 1, 178-180.	1.2	55
25	Ion irradiation effects on conduction in single-wall carbon nanotube networks. Applied Physics A: Materials Science and Processing, 2008, 90, 597-602.	1.1	53
26	Modelling conduction in carbon nanotube networks with different thickness, chemical treatment and irradiation. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 2311-2318.	1.3	44
27	Growth, structure and stability of sputter-deposited MoS₂ thin films. Beilstein Journal of Nanotechnology, 2017, 8, 1115-1126.	1.5	44
28	Correlation between resistance fluctuations and temperature dependence of conductivity in graphene. Physical Review B, 2009, 80, .	1.1	41
29	Direct imaging of light-element impurities in graphene reveals triple-coordinated oxygen. Nature Communications, 2019, 10, 4570.	5.8	39
30	Chemical Oxidation of Graphite: Evolution of the Structure and Properties. Journal of Physical Chemistry C, 2018, 122, 929-935.	1.5	38
31	Covalent Diamondâ€“Graphite Bonding: Mechanism of Catalytic Transformation. ACS Nano, 2019, 13, 4621-4630.	7.3	38
32	Conducting and transparent SWNT/polymer composites. Physica Status Solidi (B): Basic Research, 2006, 243, 3440-3444.	0.7	35
33	Inhibition of E. coli Growth by Nanodiamond and Graphene Oxide Enhanced by Luria-Bertani Medium. Nanomaterials, 2018, 8, 140.	1.9	35
34	Fractional Quantum Hall States in Bilayer Graphene Probed by Transconductance Fluctuations. Nano Letters, 2015, 15, 7445-7451.	4.5	33
35	Transconductance Fluctuations as a Probe for Interaction-Induced Quantum Hall States in Graphene. Physical Review Letters, 2012, 109, 056602.	2.9	32
36	Probing from Both Sides: Reshaping the Graphene Landscape via Face-to-Face Dual-Probe Microscopy. Nano Letters, 2013, 13, 1934-1940.	4.5	31

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37	Transport current improvements ofin situMgB2tapes by the addition of carbon nanotubes, silicon carbide or graphite. Superconductor Science and Technology, 2007, 20, 105-111.	1.8	30
38	Shape memory effect of dehydrochlorinated crosslinked poly(vinyl chloride). Macromolecular Chemistry and Physics, 1997, 198, 3161-3172.	1.1	28
39	Intermediate frequency modes in Raman spectra of Ar+-irradiated single-wall carbon nanotubes. Physica Status Solidi - Rapid Research Letters, 2007, 1, 138-140.	1.2	28
40	Toward Exotic Layered Materials: 2D Cuprous Iodide. Advanced Materials, 2022, 34, e2106922.	11.1	28
41	Structural, Electrical, and UV Detection Properties of ZnO/Si Heterojunction Diodes. IEEE Transactions on Electron Devices, 2016, 63, 1949-1956.	1.6	27
42	Effect Of Gamma-Irradiation on Single-Wall Carbon Nanotube Paper. AIP Conference Proceedings, 2003, , .	0.3	26
43	Dynamic percolation of carbon nanotubes in liquid medium. Journal of Materials Chemistry, 2007, 17, 4846.	6.7	26
44	Effect of fluorination on electrical properties of single walled carbon nanotubes and C60 peapods in networks. Current Applied Physics, 2007, 7, 42-46.	1.1	26
45	Tuning the orientation of few-layer MoS₂ films using one-zone sulfurization. RSC Advances, 2019, 9, 29645-29651.	1.7	24
46	Largeâ€Diameter Carbon Nanotube Transparent Conductor Overcoming Performanceâ€“Yield Tradeoff. Advanced Functional Materials, 2022, 32, 2103397.	7.8	24
47	Catalytic graphitization of single-crystal diamond. Carbon, 2021, 185, 300-313.	5.4	24
48	Enhanced Tunneling in a Hybrid of Single-Walled Carbon Nanotubes and Graphene. ACS Nano, 2019, 13, 11522-11529.	7.3	23
49	Shubnikovâ€“de Haas and Aharonov Bohm effects in a graphene nanoring structure. Applied Physics Letters, 2010, 96, .	1.5	22
50	Electronic transport in composites of graphite oxide with carbon nanotubes. Carbon, 2014, 72, 224-232.	5.4	22
51	Study of Ni-Catalyzed Graphitization Process of Diamond by in Situ X-ray Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2018, 122, 6629-6636.	1.5	22
52	Electrochemical preparation of thick porous polypyrrole layers. Synthetic Metals, 1993, 53, 227-235.	2.1	21
53	Low pressure effect in the electrical conductivity of doped polypyrrole. Synthetic Metals, 1998, 94, 279-283.	2.1	21
54	Electrical properties of C⁴⁺ irradiated singleâ€walled carbon nanotube paper. Physica Status Solidi (B): Basic Research, 2008, 245, 2280-2283.	0.7	21

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55	Thin transparent carbon nanotube networks: effects of ion irradiation. Physica Status Solidi (B): Basic Research, 2007, 244, 4199-4203.	0.7	20
56	Bacterial response to nanodiamonds and graphene oxide sheets. Physica Status Solidi (B): Basic Research, 2016, 253, 2481-2485.	0.7	19
57	SWNT probed by multi-frequency EPR and nonresonant microwave absorption. Physica Status Solidi (B): Basic Research, 2008, 245, 2251-2254.	0.7	18
58	Vibrational Properties of a Two-Dimensional Silica Kagome Lattice. ACS Nano, 2016, 10, 10929-10935.	7.3	18
59	Growth and properties of chemically modified graphene. Physica Status Solidi (B): Basic Research, 2010, 247, 2915-2919.	0.7	15
60	Carbon nanowalls synthesis by means of atmospheric dcPECVD method. Physica Status Solidi (B): Basic Research, 2012, 249, 2625-2628.	0.7	15
61	Direct visualization of the 3D structure of silicon impurities in graphene. Applied Physics Letters, 2019, 114, .	1.5	15
62	Electron transport in Ar+-irradiated single wall carbon nanotubes. Physica Status Solidi (B): Basic Research, 2006, 243, 3346-3350.	0.7	12
63	HFCVD growth of various carbon nanostructures on SWCNT paper controlled by surface treatment. Physica Status Solidi (B): Basic Research, 2012, 249, 2399-2403.	0.7	12
64	In-situ synthesis of transparent and conductive carbon nanotube networks. Physica Status Solidi - Rapid Research Letters, 2007, 1, 165-167.	1.2	11
65	Chemical processes during solid state reaction of carbon with alkali salts prepared for gravimetric hydrogen storage measurements. Chemical Physics Letters, 2002, 365, 333-337.	1.2	10
66	Raman mode shifts correlated with conductivity and Young's modulus changes in modified carbon nanotube networks. Physica Status Solidi - Rapid Research Letters, 2008, 2, 62-64.	1.2	9
67	Electronic transport in carbon nanotubes: From individual nanotubes to thin and thick networks. , 2006, , .		8
68	Synthesis of SWCNTs for C82 peapods by arc-discharge process using nonmagnetic catalysts. Physica Status Solidi (B): Basic Research, 2006, 243, 3042-3045.	0.7	8
69	Effects of ion beam heating on Raman spectra of single-walled carbon nanotubes. Applied Physics Letters, 2009, 94, .	1.5	8
70	Penetration based CNT/Solâ€“Gel composite films and their remarkable electrical properties. Microelectronic Engineering, 2011, 88, 2513-2515.	1.1	8
71	Anomalies in the temperature dependence of the electrical conductivity of polypyrrole. Macromolecular Chemistry and Physics, 1994, 195, 2523-2529.	1.1	7
72	Direct transfer of CVD-grown transparent SWCNT networks from growth substrate to polymer. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 2430-2433.	1.3	6

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73	Carbon nanotubes overgrown and ingrown with nanocrystalline diamond deposited by different CVD plasma systems. Physica Status Solidi (B): Basic Research, 2014, 251, 2413-2419.	0.7	6
74	Ni-mediated reactions in nanocrystalline diamond on Si substrates: the role of the oxide barrier. RSC Advances, 2020, 10, 8224-8232.	1.7	6
75	Conformational transition in polypyrrole at low pressure. Synthetic Metals, 1999, 101, 308-309.	2.1	5
76	Resistance and mesoscopic fluctuations in graphene. Physica Status Solidi (B): Basic Research, 2010, 247, 2983-2987.	0.7	5
77	Dimensional crossover in the quantum transport behaviour of the natural topological insulator Aleksite. Scientific Reports, 2015, 5, 11691.	1.6	5
78	Method for continuous production of catalysts for synthesis of carbon nanotubes. Physica Status Solidi (B): Basic Research, 2007, 244, 3930-3934.	0.7	4
79	Atom-by-atom chemical identification from scanning transmission electron microscopy images in presence of noise and residual aberrations. Ultramicroscopy, 2021, 227, 113292.	0.8	4
80	Sensitivity of the electrical conductivity of doped polypyrrole to low pressure. Synthetic Metals, 1999, 101, 399-400.	2.1	3
81	Catalytic chemical vapour deposition growth of single wall carbon nanotube films on different substrates for transparent electronic devices. Physica Status Solidi (B): Basic Research, 2007, 244, 3935-3938.	0.7	3
82	Layer-by-layer deposition of ultra-thin films of carbon nanotubes. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 2257-2262.	1.3	3
83	Bonding Effects in Nitrogen Doped Graphene and Hexagonal Boron Nitride. Microscopy and Microanalysis, 2010, 16, 542-543.	0.2	3
84	Fabrication of free-standing pure carbon-based composite material with the combination of sp2â€“sp3 hybridizations. Applied Surface Science, 2014, 308, 211-215.	3.1	3
85	Functionalized graphene transistor for ultrasensitive detection of carbon quantum dots. Journal of Applied Physics, 2019, 126, 214303.	1.1	3
86	Anomaly in the temperature dependence of the electrical conductivity of foam polypyrrole. Synthetic Metals, 1990, 36, 253-262.	2.1	2
87	Pressure Relaxation of the DC Conductivity and Optical Absorption Spectra in Doped Polypyrrole. Materials Science Forum, 1993, 122, 99-104.	0.3	2
88	Carbon Onions: Optical Investigation of Electron Beam Irradiated Carbon Materials. Materials Science Forum, 1995, 191, 171-176.	0.3	2
89	Variations of electronic transport in graphene of different origins. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 3191-3194.	0.8	2
90	Low pressure dependence of the optical absorption spectra of doped polyacetylene and polypyrrole. Synthetic Metals, 1993, 55, 141-146.	2.1	1

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91	Thermal properties of powder polyacetylene. Synthetic Metals, 1993, 55, 135-140.	2.1	1
92	Temperature Relaxation of DC Conductivity of Doped Polypyrrole. Materials Science Forum, 1993, 122, 93-98.	0.3	1
93	The Influence of Sulfur Promoter on the Production of SWCNTs by the Arc-Discharge Process. AIP Conference Proceedings, 2005, , .	0.3	1
94	Synthesis of carbon nanowalls on macroporous nickel foam by atmospheric glow discharge chemical vapour deposition. Physica Status Solidi (B): Basic Research, 2014, 251, 933-936.	0.7	1
95	Low Pressure Dependence of the Electrical Conductivity in Doped Polypyrrole. Materials Science Forum, 1995, 191, 135-140.	0.3	0
96	Low-pressure-induced conformational transition in doped polypyrrole: electrical conductivity. Advanced Materials for Optics and Electronics, 1998, 8, 77-80.	0.6	0
97	Low-pressure-induced conformational transition in doped polypyrrole: optical and IR spectra. Advanced Materials for Optics and Electronics, 1998, 8, 81-85.	0.6	0
98	Transport Properties of Functionalized Single Wall Nanotubes Buckypaper. AIP Conference Proceedings, 2004, , .	0.3	0
99	Electron Transport â€" from Buckypaper to Thin Single-Wall Nanotube Networks. AIP Conference Proceedings, 2005, , .	0.3	0
100	Carbon Nanotubes in Electronics. , 2006, , .		0
101	Growth of Large Transparent and Conducting Graphene Sheets Using Chemical Vapor Deposition. ECS Transactions, 2009, 25, 59-61.	0.3	0
102	Preface: Phys. Status Solidi C 7/3-4. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1215-1215.	0.8	0
103	Quantitative Atomic-resolution Imaging and Spectroscopy of a 2D Silica Glass. Microscopy and Microanalysis, 2012, 18, 340-341.	0.2	0
104	Imaging the Atoms in a Two-Dimensional Silica Glass on Graphene. Microscopy and Microanalysis, 2012, 18, 1496-1497.	0.2	0
105	Quantitative Analysis of Electron Beam-Induced Destruction of Graphene Membranes under an Electron Microscope. Microscopy and Microanalysis, 2012, 18, 1500-1501.	0.2	0
106	Graphene, nanotubes and related materials. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1161-1162.	0.8	0
107	Report on the Special Miniworkshop â€œnano&Managementâ€• Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1877-1881.	0.8	0