

Viera Skakalova

List of Publications by Year in descending order

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107
papers

5,250
citations

136950

32
h-index

85541

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. <i>Physical Review Letters</i> , 2012, 108, 196102.	7.8	383
2	Growth and properties of few-layer graphene prepared by chemical vapor deposition. <i>Carbon</i> , 2010, 48, 1088-1094.	10.3	333
3	Effect of SOCl ₂ Treatment on Electrical and Mechanical Properties of Single-Wall Carbon Nanotube Networks. <i>Journal of the American Chemical Society</i> , 2005, 127, 5125-5131.	13.7	330
4	Experimental analysis of charge redistribution due to chemical bonding by high-resolution transmission electron microscopy. <i>Nature Materials</i> , 2011, 10, 209-215.	27.5	270
5	Diamond/carbon nanotube composites: Raman, FTIR and XPS spectroscopic studies. <i>Carbon</i> , 2017, 111, 54-61.	10.3	247
6	Direct Imaging of a Two-Dimensional Silica Glass on Graphene. <i>Nano Letters</i> , 2012, 12, 1081-1086.	9.1	236
7	Electronic transport in carbon nanotubes: From individual nanotubes to thin and thick networks. <i>Physical Review B</i> , 2006, 74, .	3.2	217
8	Hydrogen storage in carbon nanostructures. <i>Journal of Alloys and Compounds</i> , 2002, 330-332, 654-658.	5.5	215
9	Effect of Chemical Treatment on Electrical Conductivity, Infrared Absorption, and Raman Spectra of Single-Walled Carbon Nanotubes. <i>Journal of Physical Chemistry B</i> , 2005, 109, 7174-7181.	2.6	204
10	Electronic conduction in polymers, carbon nanotubes and graphene. <i>Chemical Society Reviews</i> , 2011, 40, 3786.	38.1	186
11	Atom-by-Atom Observation of Grain Boundary Migration in Graphene. <i>Nano Letters</i> , 2012, 12, 3168-3173.	9.1	178
12	Raman Scattering at Pure Graphene Zigzag Edges. <i>Nano Letters</i> , 2010, 10, 4544-4548.	9.1	166
13	Size and Purity Control of HPHT Nanodiamonds down to 1 nm. <i>Journal of Physical Chemistry C</i> , 2015, 119, 27708-27720.	3.1	144
14	Atomistic Description of Electron Beam Damage in Nitrogen-Doped Graphene and Single-Walled Carbon Nanotubes. <i>ACS Nano</i> , 2012, 6, 8837-8846.	14.6	119
15	Electrical and mechanical properties of nanocomposites of single wall carbon nanotubes with PMMA. <i>Synthetic Metals</i> , 2005, 152, 349-352.	3.9	116
16	Hydrogen storage in carbon nanotubes. <i>Comptes Rendus Physique</i> , 2003, 4, 1055-1062.	0.9	104
17	Synthesis and characterization of carbon nanotube-conducting polymer thin films. <i>Diamond and Related Materials</i> , 2004, 13, 256-260.	3.9	94
18	Raman spectroscopy of single-wall carbon nanotubes and graphite irradiated by γ rays. <i>Journal of Applied Physics</i> , 2005, 98, 024311.	2.5	80

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19	Defects in bilayer silica and graphene: common trends in diverse hexagonal two-dimensional systems. <i>Scientific Reports</i> , 2013, 3, 3482.	3.3	80
20	Gamma-irradiated and functionalized single wall nanotubes. <i>Diamond and Related Materials</i> , 2004, 13, 296-298.	3.9	73
21	Computational insights and the observation of SiC nanograin assembly: towards 2D silicon carbide. <i>Scientific Reports</i> , 2017, 7, 4399.	3.3	73
22	Biomass waste-carbon/reduced graphene oxide composite electrodes for enhanced supercapacitors. <i>Electrochimica Acta</i> , 2019, 298, 910-917.	5.2	68
23	High-yield fabrication and properties of 1.4%nm nanodiamonds with narrow size distribution. <i>Scientific Reports</i> , 2016, 6, 38419.	3.3	63
24	Electrical properties of transparent carbon nanotube networks prepared through different techniques. <i>Physica Status Solidi - Rapid Research Letters</i> , 2007, 1, 178-180.	2.4	55
25	Ion irradiation effects on conduction in single-wall carbon nanotube networks. <i>Applied Physics A: Materials Science and Processing</i> , 2008, 90, 597-602.	2.3	53
26	Modelling conduction in carbon nanotube networks with different thickness, chemical treatment and irradiation. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008, 40, 2311-2318.	2.7	44
27	Growth, structure and stability of sputter-deposited MoS ₂ thin films. <i>Beilstein Journal of Nanotechnology</i> , 2017, 8, 1115-1126.	2.8	44
28	Correlation between resistance fluctuations and temperature dependence of conductivity in graphene. <i>Physical Review B</i> , 2009, 80, .	3.2	41
29	Direct imaging of light-element impurities in graphene reveals triple-coordinated oxygen. <i>Nature Communications</i> , 2019, 10, 4570.	12.8	39
30	Chemical Oxidation of Graphite: Evolution of the Structure and Properties. <i>Journal of Physical Chemistry C</i> , 2018, 122, 929-935.	3.1	38
31	Covalent Diamond-Graphite Bonding: Mechanism of Catalytic Transformation. <i>ACS Nano</i> , 2019, 13, 4621-4630.	14.6	38
32	Conducting and transparent SWNT/polymer composites. <i>Physica Status Solidi (B): Basic Research</i> , 2006, 243, 3440-3444.	1.5	35
33	Inhibition of E. coli Growth by Nanodiamond and Graphene Oxide Enhanced by Luria-Bertani Medium. <i>Nanomaterials</i> , 2018, 8, 140.	4.1	35
34	Fractional Quantum Hall States in Bilayer Graphene Probed by Transconductance Fluctuations. <i>Nano Letters</i> , 2015, 15, 7445-7451.	9.1	33
35	Transconductance Fluctuations as a Probe for Interaction-Induced Quantum Hall States in Graphene. <i>Physical Review Letters</i> , 2012, 109, 056602.	7.8	32
36	Probing from Both Sides: Reshaping the Graphene Landscape via Face-to-Face Dual-Probe Microscopy. <i>Nano Letters</i> , 2013, 13, 1934-1940.	9.1	31

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37	Transport current improvements of in situ MgB ₂ tapes by the addition of carbon nanotubes, silicon carbide or graphite. Superconductor Science and Technology, 2007, 20, 105-111.	3.5	30
38	Shape memory effect of dehydrochlorinated crosslinked poly(vinyl chloride). Macromolecular Chemistry and Physics, 1997, 198, 3161-3172.	2.2	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.	2.4	28
40	Toward Exotic Layered Materials: 2D Cuprous Iodide. Advanced Materials, 2022, 34, e2106922.	21.0	28
41	Structural, Electrical, and UV Detection Properties of ZnO/Si Heterojunction Diodes. IEEE Transactions on Electron Devices, 2016, 63, 1949-1956.	3.0	27
42	Effect Of Gamma-Irradiation on Single-Wall Carbon Nanotube Paper. AIP Conference Proceedings, 2003, , ,	0.4	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 C ₆₀ peapods in networks. Current Applied Physics, 2007, 7, 42-46.	2.4	26
45	Tuning the orientation of few-layer MoS ₂ films using one-zone sulfurization. RSC Advances, 2019, 9, 29645-29651.	3.6	24
46	Large Diameter Carbon Nanotube Transparent Conductor Overcoming Performance Yield Tradeoff. Advanced Functional Materials, 2022, 32, 2103397.	14.9	24
47	Catalytic graphitization of single-crystal diamond. Carbon, 2021, 185, 300-313.	10.3	24
48	Enhanced Tunneling in a Hybrid of Single-Walled Carbon Nanotubes and Graphene. ACS Nano, 2019, 13, 11522-11529.	14.6	23
49	Shubnikov de Haas and Aharonov Bohm effects in a graphene nanoring structure. Applied Physics Letters, 2010, 96, ,	3.3	22
50	Electronic transport in composites of graphite oxide with carbon nanotubes. Carbon, 2014, 72, 224-232.	10.3	22
51	Study of Ni-Catalyzed Graphitization Process of Diamond by <i>in Situ</i> X-ray Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2018, 122, 6629-6636.	3.1	22
52	Electrochemical preparation of thick porous polypyrrole layers. Synthetic Metals, 1993, 53, 227-235.	3.9	21
53	Low pressure effect in the electrical conductivity of doped polypyrrole. Synthetic Metals, 1998, 94, 279-283.	3.9	21
54	Electrical properties of C ⁴⁺ irradiated single-walled carbon nanotube paper. Physica Status Solidi (B): Basic Research, 2008, 245, 2280-2283.	1.5	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.	1.5	20
56	Bacterial response to nanodiamonds and graphene oxide sheets. Physica Status Solidi (B): Basic Research, 2016, 253, 2481-2485.	1.5	19
57	SWNT probed by multi-frequency EPR and nonresonant microwave absorption. Physica Status Solidi (B): Basic Research, 2008, 245, 2251-2254.	1.5	18
58	Vibrational Properties of a Two-Dimensional Silica Kagome Lattice. ACS Nano, 2016, 10, 10929-10935.	14.6	18
59	Growth and properties of chemically modified graphene. Physica Status Solidi (B): Basic Research, 2010, 247, 2915-2919.	1.5	15
60	Carbon nanowalls synthesis by means of atmospheric dcPECVD method. Physica Status Solidi (B): Basic Research, 2012, 249, 2625-2628.	1.5	15
61	Direct visualization of the 3D structure of silicon impurities in graphene. Applied Physics Letters, 2019, 114, .	3.3	15
62	Electron transport in Ar ⁺ -irradiated single wall carbon nanotubes. Physica Status Solidi (B): Basic Research, 2006, 243, 3346-3350.	1.5	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.	1.5	12
64	In-situ synthesis of transparent and conductive carbon nanotube networks. Physica Status Solidi - Rapid Research Letters, 2007, 1, 165-167.	2.4	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.	2.6	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.	2.4	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.	1.5	8
69	Effects of ion beam heating on Raman spectra of single-walled carbon nanotubes. Applied Physics Letters, 2009, 94, .	3.3	8
70	Penetration based CNT/Solâ€“Gel composite films and their remarkable electrical properties. Microelectronic Engineering, 2011, 88, 2513-2515.	2.4	8
71	Anomalies in the temperature dependence of the electrical conductivity of polypyrrole. Macromolecular Chemistry and Physics, 1994, 195, 2523-2529.	2.2	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.	2.7	6

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73	Carbon nanotubes overgrown and ingrown with nanocrystalline diamond deposited by different CVD plasma systems. <i>Physica Status Solidi (B): Basic Research</i> , 2014, 251, 2413-2419.	1.5	6
74	Ni-mediated reactions in nanocrystalline diamond on Si substrates: the role of the oxide barrier. <i>RSC Advances</i> , 2020, 10, 8224-8232.	3.6	6
75	Conformational transition in polypyrrole at low pressure. <i>Synthetic Metals</i> , 1999, 101, 308-309.	3.9	5
76	Resistance and mesoscopic fluctuations in graphene. <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 2983-2987.	1.5	5
77	Dimensional crossover in the quantum transport behaviour of the natural topological insulator <i>Alexsite</i> . <i>Scientific Reports</i> , 2015, 5, 11691.	3.3	5
78	Method for continuous production of catalysts for synthesis of carbon nanotubes. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 3930-3934.	1.5	4
79	Atom-by-atom chemical identification from scanning transmission electron microscopy images in presence of noise and residual aberrations. <i>Ultramicroscopy</i> , 2021, 227, 113292.	1.9	4
80	Sensitivity of the electrical conductivity of doped polypyrrole to low pressure. <i>Synthetic Metals</i> , 1999, 101, 399-400.	3.9	3
81	Catalytic chemical vapour deposition growth of single wall carbon nanotube films on different substrates for transparent electronic devices. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 3935-3938.	1.5	3
82	Layer-by-layer deposition of ultra-thin films of carbon nanotubes. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008, 40, 2257-2262.	2.7	3
83	Bonding Effects in Nitrogen Doped Graphene and Hexagonal Boron Nitride. <i>Microscopy and Microanalysis</i> , 2010, 16, 542-543.	0.4	3
84	Fabrication of free-standing pure carbon-based composite material with the combination of sp^2 and sp^3 hybridizations. <i>Applied Surface Science</i> , 2014, 308, 211-215.	6.1	3
85	Functionalized graphene transistor for ultrasensitive detection of carbon quantum dots. <i>Journal of Applied Physics</i> , 2019, 126, 214303.	2.5	3
86	Anomaly in the temperature dependence of the electrical conductivity of foam polypyrrole. <i>Synthetic Metals</i> , 1990, 36, 253-262.	3.9	2
87	Pressure Relaxation of the DC Conductivity and Optical Absorption Spectra in Doped Polypyrrole. <i>Materials Science Forum</i> , 1993, 122, 99-104.	0.3	2
88	Carbon Onions: Optical Investigation of Electron Beam Irradiated Carbon Materials. <i>Materials Science Forum</i> , 1995, 191, 171-176.	0.3	2
89	Variations of electronic transport in graphene of different origins. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011, 8, 3191-3194.	0.8	2
90	Low pressure dependence of the optical absorption spectra of doped polyacetylene and polypyrrole. <i>Synthetic Metals</i> , 1993, 55, 141-146.	3.9	1

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91	Thermal properties of powder polyacetylene. <i>Synthetic Metals</i> , 1993, 55, 135-140.	3.9	1
92	Temperature Relaxation of DC Conductivity of Doped Polypyrrole. <i>Materials Science Forum</i> , 1993, 122, 93-98.	0.3	1
93	The Influence of Sulfur Promoter on the Production of SWCNTs by the Arc-Discharge Process. <i>AIP Conference Proceedings</i> , 2005, , .	0.4	1
94	Synthesis of carbon nanowalls on macroporous nickel foam by atmospheric glow discharge chemical vapour deposition. <i>Physica Status Solidi (B): Basic Research</i> , 2014, 251, 933-936.	1.5	1
95	Low Pressure Dependence of the Electrical Conductivity in Doped Polypyrrole. <i>Materials Science Forum</i> , 1995, 191, 135-140.	0.3	0
96	Low-pressure-induced conformational transition in doped polypyrrole: electrical conductivity. <i>Advanced Materials for Optics and Electronics</i> , 1998, 8, 77-80.	0.4	0
97	Low-pressure-induced conformational transition in doped polypyrrole: optical and IR spectra. <i>Advanced Materials for Optics and Electronics</i> , 1998, 8, 81-85.	0.4	0
98	Transport Properties of Functionalized Single Wall Nanotubes Bucky paper. <i>AIP Conference Proceedings</i> , 2004, , .	0.4	0
99	Electron Transport " from Bucky paper to Thin Single-Wall Nanotube Networks. <i>AIP Conference Proceedings</i> , 2005, , .	0.4	0
100	Carbon Nanotubes in Electronics. , 2006, , .		0
101	Growth of Large Transparent and Conducting Graphene Sheets Using Chemical Vapor Deposition. <i>ECS Transactions</i> , 2009, 25, 59-61.	0.5	0
102	Preface: <i>Phys. Status Solidi C</i> 7/3-4. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 1215-1215.	0.8	0
103	Quantitative Atomic-resolution Imaging and Spectroscopy of a 2D Silica Glass. <i>Microscopy and Microanalysis</i> , 2012, 18, 340-341.	0.4	0
104	Imaging the Atoms in a Two-Dimensional Silica Glass on Graphene. <i>Microscopy and Microanalysis</i> , 2012, 18, 1496-1497.	0.4	0
105	Quantitative Analysis of Electron Beam-Induced Destruction of Graphene Membranes under an Electron Microscope. <i>Microscopy and Microanalysis</i> , 2012, 18, 1500-1501.	0.4	0
106	Graphene, nanotubes and related materials. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2013, 10, 1161-1162.	0.8	0
107	Report on the Special Miniworkshop "nano&Management" <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2013, 10, 1877-1881.	0.8	0