Friedrich Roth

List of Publications by Year
in descending order

45 papers	929 citations	516215 16 h-index	454577 30 g-index
46 all docs	46 docs citations	46 times ranked	1220 citing authors

#	Article	IF	Citations
1	From graphene oxide towards aminated graphene: facile synthesis, its structure and electronic properties. Scientific Reports, 2020, 10, 6902.	1.6	114
2	Facile reduction of graphene oxide suspensions and films using glass wafers. Scientific Reports, 2018, 8, 14154.	1.6	110
3	Electron energy-loss spectroscopy: A versatile tool for the investigations of plasmonic excitations. Journal of Electron Spectroscopy and Related Phenomena, 2014, 195, 85-95.	0.8	65
4	Extreme biomimetics: Preservation of molecular detail in centimeter-scale samples of biological meshes laid down by sponges. Science Advances, 2019, 5, eaax2805.	4.7	53
5	Extreme biomimetics: A carbonized 3D spongin scaffold as a novel support for nanostructured manganese oxide(IV) and its electrochemical applications. Nano Research, 2018, 11, 4199-4214.	5.8	51
6	Absence of photoemission from the Fermi level in potassium intercalated picene and coronene films: Structure, polaron, or correlation physics?. Journal of Chemical Physics, 2012, 136, 134503.	1.2	50
7	Electronic properties of molecular solids: the peculiar case of solid picene. New Journal of Physics, 2010, 12, 103036.	1.2	46
8	Momentum dependence of the excitons in pentacene. Journal of Chemical Physics, 2012, 136, 204708.	1.2	43
9	Plasmon dispersion in molecular solids: Picene and potassium-doped picene. Physical Review B, 2011, 84, .	1.1	28
10	Electronic structure of undoped and potassium-doped coronene investigated by electron energy-loss spectroscopy. Physical Review B, 2012, 85, .	1.1	28
11	Exciton character in picene molecular solids. Physical Review B, 2011, 83, .	1.1	27
12	Dynamic response and electronic structure of potassium-doped picene investigated by electron energy-loss spectroscopy. Physical Review B, 2011, 83, .	1.1	26
13	Extreme Biomimetics: Designing of the First Nanostructured 3D Sponginâ€“Atacamite Composite and its Application. Advanced Materials, 2021, 33, e2101682.	11.1	21
14	Photoinduced Charge Carrier Dynamics and Electron Injection Efficiencies in Au Nanoparticle-Sensitized TiO₂ Determined with Picosecond Time-Resolved X-ray Photoelectron Spectroscopy. Journal of Physical Chemistry Letters, 2020, 11, 5476-5481.	2.1	18
15	Phthalocyanine dimers in a blend: Spectroscopic and theoretical studies of MnPcÎ´+/F16CoPcÎ´â¯. Journal of Chemical Physics, 2013, 138, 024707.	1.2	17
16	Direct observation of charge separation in an organic light harvesting system by femtosecond time-resolved XPS. Nature Communications, 2021, 12, 1196.	5.8	17
17	Exciton properties of selected aromatic hydrocarbon systems. European Physical Journal B, 2013, 86, 1.	0.6	16
18	Loss spectroscopy of molecular solids: combining experiment and theory. New Journal of Physics, 2013, 15, 125024.	1.2	15

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19	Site-specific probing of charge transfer dynamics in organic photovoltaics. Applied Physics Letters, 2015, 106, .	1.5	15
20	Ultrafast orbital tomography of a pentacene film using time-resolved momentum microscopy at a FEL. Nature Communications, 2022, 13, 2741.	5.8	13
21	Electronic excitations of potassium intercalated manganese phthalocyanine investigated by electron energy-loss spectroscopy. Journal of Chemical Physics, 2011, 134, 194504.	1.2	11
22	Comprehensive studies of the electronic structure of pristine and potassium doped chrysene investigated by electron energy-loss spectroscopy. Journal of Chemical Physics, 2012, 137, 114508.	1.2	11
23	Electronic properties and morphology of Cu-phthalocyanineâ€"C60 composite mixtures. Journal of Applied Physics, 2014, 115, 033705.	1.1	11
24	Low-energy exciton pocket at finite momentum in tetracene molecular solids. Europhysics Letters, 2015, 112, 37004.	0.7	10
25	Angle resolved Photoemission from Ag and Au single crystals: Final state lifetimes in the attosecond range. Journal of Electron Spectroscopy and Related Phenomena, 2018, 224, 84-92.	0.8	10
26	Electronic properties of spiro compounds for organic electronics. Journal of Chemical Physics, 2012, 136, 124702.	1.2	9
27	Improving the efficiency of high harmonic generation (HHG) by Ne-admixing into a pure Ar gas medium. Applied Physics B: Lasers and Optics, 2016, 122, 1.	1.1	9
28	Efficient charge generation from triplet excitons in metal-organic heterojunctions. Physical Review B, 2019, 99, .	1.1	9
29	Electronic properties of 1,2;8,9-dibenzopentacene thin films: A joint experimental and theoretical study. Physical Review B, 2012, 86, .	1.1	8
30	Irradiation-induced degradation of PTB7 investigated by valence band and S 2pphotoelectron spectroscopy. Nanotechnology, 2016, 27, 324005.	1.3	8
31	Decomposing electronic and lattice contributions in optical pump â€“ X-ray probe transient inner-shell absorption spectroscopy of CuO. Faraday Discussions, 2019, 216, 414-433.	1.6	8
32	Plasmons and interband transitions ofCa11Sr3Cu24O41investigated by electron energy-loss spectroscopy. Physical Review B, 2010, 82, .	1.1	7
33	Challenging the nature of low-energy plasmon excitations in CaC 6 using electron energy-loss spectroscopy. Europhysics Letters, 2013, 102, 17001.	0.7	7
34	Impact of potassium doping on the electronic structure of tetracene and pentacene: An electron energy-loss study. Journal of Chemical Physics, 2015, 143, 154708.	1.2	7
35	On the Electronic Structure of Cu Chlorophyllin and Its Breakdown Products: A Carbon K-Edge X-ray Absorption Spectroscopy Study. Journal of Physical Chemistry B, 2018, 122, 1846-1851.	1.2	7
36	Guiding graphene derivatization for covalent immobilization of aptamers. Carbon, 2022, 196, 264-279.	5.4	7

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37	Electronic properties of Mn-phthalocyanineâ€“C60 bulk heterojunctions: Combining photoemission and electron energy-loss spectroscopy. Journal of Applied Physics, 2015, 118, .	1.1	4
38	Optical Anisotropy and Momentum-Dependent Excitons in Dibenzopentacene Single Crystals. ACS Omega, 2022, 7, 21183-21191.	1.6	4
39	Evidence for an orbital dependent Mott transition in the ladders of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mrow><mml:mo>(</mml:mo><mml:mi>La</mml:mi> ma. Physical Review B, 2020, 101, .	1.1	3
40	CeMo₂B₅: A New Type of Arrangement of Puckered Boron Hexagonal Rings. European Journal of Inorganic Chemistry, 2019, 2019, 3572-3580.	1.0	2
41	Electronic excitation spectrum of doped organic thin films investigated using electron energy-loss spectroscopy. Journal of Electron Spectroscopy and Related Phenomena, 2015, 204, 23-28.	0.8	1
42	Real-time interfacial electron dynamics revealed through temporal correlations in x-ray photoelectron spectroscopy. Structural Dynamics, 2021, 8, 044301.	0.9	1
43	Nanoscale Confinement of Photo-Injected Electrons at Hybrid Interfaces. Journal of Physical Chemistry Letters, 2021, 12, 11951-11959.	2.1	1
44	Electronic excitation spectrum of calcium-doped picene: Electron energy-loss spectroscopy study. Physical Review B, 2013, 88, .	1.1	0
45	Towards Real-Time Monitoring of Interfacial Chemical Dynamics with Time-Resolved X-ray Photoelectron Spectroscopy. , 2020, , .		0