Peter Kruse

List of Publications by Year
in descending order

77 papers	1,722 citations	236925 25 h-index	302126 39 g-index
79 all docs	79 docs citations	79 times ranked	1908 citing authors

#	Article	IF	Citations
1	Detection of free chlorine in water using graphene-like carbon based chemiresistive sensors. RSC Advances, 2022, 12, 2485-2496.	3.6	12
2	A xurography based rapid prototyping method to fabricate low-cost and high quality metal thin film micropatterns using metal leaves. Materials Today Communications, 2022, 30, 103132.	1.9	3
3	Reagent-Free Hydrogen Peroxide Sensing Using Carbon Nanotube Chemiresistors with Electropolymerized Crystal Violet. ACS Applied Nano Materials, 2022, 5, 3957-3966.	5.0	7
4	Tuning the Chemical and Mechanical Properties of Conductive MoS₂ Thin Films by Surface Modification with Aryl Diazonium Salts. Langmuir, 2022, 38, 3666-3675.	3.5	4
5	Graphene-silicon Schottky devices for operation in aqueous environments: Device performance and sensing application. Carbon, 2022, 194, 140-153.	10.3	5
6	Defect Density-Dependent pH Response of Graphene Derivatives: Towards the Development of pH-Sensitive Graphene Oxide Devices. Nanomaterials, 2022, 12, 1801.	4.1	8
7	(Invited) Chemiresistive Water Quality Sensors: Challenges and Progress. ECS Meeting Abstracts, 2022, MA2022-01, 2135-2135.	0.0	0
8	Development of Solid-State Chemiresistive Devices for Simultaneous Detection of Nitrate, Nitrite and Ammonium Ions in Aqueous Solutions. ECS Meeting Abstracts, 2022, MA2022-01, 2139-2139.	0.0	1
9	Towards Understanding the Impact of Electrochemical Double Layer on the Performance of Graphene Devices. ECS Meeting Abstracts, 2022, MA2022-01, 841-841.	0.0	0
10	Nanocarbon Based Chemiresistive Detection of Monochloramine in Water. ECS Meeting Abstracts, 2022, MA2022-01, 2137-2137.	0.0	1
11	Reviewâ€"Solid State Sensors for Phosphate Detection in Environmental and Medical Diagnostics. Journal of the Electrochemical Society, 2022, 169, 077505.	2.9	6
12	Chemiresistive detection of silver ions in aqueous media. Sensors and Actuators B: Chemical, 2021, 328, 129023.	7.8	16
13	Modifying Nanocarbon Films with Switchable Dopant Molecules for the Detection of Aqueous Permanganate. ECS Meeting Abstracts, 2021, MA2021-01, 1554-1554.	0.0	0
14	Direct Exfoliation of Conductive MoS2 Using Peroxide for Solid State Sensor and Catalytic Applications. ECS Meeting Abstracts, 2021, MA2021-01, 675-675.	0.0	0
15	Impact of Surface Adsorption on Metalâ€"Ligand Binding of Phenanthrolines. Journal of Physical Chemistry C, 2021, 125, 21112-21123.	3.1	11
16	Solid State Sensors for Hydrogen Peroxide Detection. Biosensors, 2021, 11, 9.	4.7	38
17	Defect Engineering of Graphene to Modulate pH Response of Graphene Devices. Langmuir, 2021, 37, 12163-12178.	3.5	16
18	Facile fabrication of conductive MoS₂ thin films by sonication in hot water and evaluation of their electrocatalytic performance in the hydrogen evolution reaction. Nanoscale Advances, 2021, 4, 125-137.	4.6	10

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19	An Electropolymerized Self Assembled Monolayer of Crystal Violet for Chemiresistive Hydrogen Peroxide Sensor. ECS Meeting Abstracts, 2021, MA2021-02, 1919-1919.	0.0	0
20	Single-walled Carbon Nanotube Chemiresistive Sensors for the Identification and Quantification of Disinfectants. ECS Meeting Abstracts, 2021, MA2021-02, 1613-1613.	0.0	0
21	Peroxide-Induced Tuning of the Conductivity of Nanometer-Thick MoS₂ Films for Solid-State Sensors. ACS Applied Nano Materials, 2020, 3, 10864-10877.	5.0	9
22	Reviewâ€"Graphene-Based Water Quality Sensors. Journal of the Electrochemical Society, 2020, 167, 037539.	2.9	40
23	Editorsâ€™ Choiceâ€"Reviewâ€"Conductive Forms of MoS₂ and Their Applications in Energy Storage and Conversion. Journal of the Electrochemical Society, 2020, 167, 126517.	2.9	46
24	Reviewâ€"Two-Dimensional Boron Carbon Nitride: A Comprehensive Review. ECS Journal of Solid State Science and Technology, 2020, 9, 083004.	1.8	49
25	Switchable Dopants on Percolation Networks of 2D Materials for Chemiresistive Sensing Applications in Aqueous Environments. ECS Meeting Abstracts, 2020, MA2020-01, 2477-2477.	0.0	0
26	Tuning the Conductivity of Molybdenum Disulfide (MoS2) Thin Films through Defect Engineering. ECS Meeting Abstracts, 2020, MA2020-01, 867-867.	0.0	0
27	Chemiresistive Detection of Silver Ions in Aqueous Media. ECS Meeting Abstracts, 2020, MA2020-01, 2232-2232.	0.0	0
28	Hydrogen peroxide chemiresistive detection platform with wide range of detection. , 2019, , .		4
29	Metal Cation Detection in Drinking Water. Sensors, 2019, 19, 5134.	3.8	55
30	Robust Chemiresistive Sensor for Continuous Monitoring of Free Chlorine Using Graphene-like Carbon. ACS Sensors, 2018, 3, 451-457.	7.8	7
31	Chemical in situ modulation of doping interactions between oligoanilines and nanocarbon films. Surface Science, 2018, 676, 61-70.	1.9	12
32	Review on water quality sensors. Journal Physics D: Applied Physics, 2018, 51, 203002.	2.8	91
33	Chemical sensors based on surface charge transfer. ChemistrySelect, 2018, 3, .	1.5	7
34	Nature of the Interaction ofN,Nâ€²-Diphenyl-1,4-phenylenediamine with Iron Oxide Surfaces. Journal of Physical Chemistry C, 2017, 121, 2721-2729.	3.1	4
35	Nature of the Interaction of N,Nâ€²-Diphenyl-1,4-benzoquinonediimine with Iron Oxide Surfaces and Its Mobility on the Same Surfaces. Journal of Physical Chemistry C, 2017, 121, 2294-2302.	3.1	4
36	Reagent-Free Quantification of Aqueous Free Chlorine via Electrical Readout of Colorimetrically Functionalized Pencil Lines. ACS Applied Materials & Interfaces, 2017, 9, 20748-20761.	8.0	27

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37	Pencil-Drawn Chemiresistive Sensor for Free Chlorine in Water. , 2017, 1, 1-4.		25
38	Surface Mobility and Nucleation of a Molecular Switch: Tetraaniline on Hematite. Journal of Physical Chemistry C, 2017, 121, 26350-26360.	3.1	1
39	Interactions of Different Redox States of Phenyl-Capped Aniline Tetramers with Iron Oxide Surfaces and Consequences for Corrosion Inhibition. Journal of the Electrochemical Society, 2017, 164, C1013-C1026.	2.9	5
40	Interfacial Charge Transfer between Phenyl-Capped Aniline Tetramer Films and Iron Oxide Surfaces. Journal of Physical Chemistry C, 2016, 120, 29248-29263.	3.1	85
41	Ultrathin Gas Permeable Oxide Membranes for Chemical Sensing: Nanoporous Ta2O5 Test Study. Materials, 2015, 8, 6677-6684.	2.9	7
42	A carbon nanotube based resettable sensor for measuring free chlorine in drinking water. Applied Physics Letters, 2015, 106, .	3.3	46
43	A carbon nanotube based resettable sensor for measuring free chlorine in drinking water. , 2014, , .		1
44	Sponge-Like Porous Metal Surfaces from Anodization in Very Concentrated Acids. Journal of the Electrochemical Society, 2013, 160, C12-C18.	2.9	37
45	Ordered nano-scale dimple pattern formation on a titanium alloy (Ti-6Al-4V). AIP Advances, 2012, 2, .	1.3	6
46	Cause and Consequence of Carbon Nanotube Doping in Water and Aqueous Media. Journal of the American Chemical Society, 2010, 132, 1572-1577.	13.7	42
47	The effect of GaAs(100) surface preparation on the growth of nanowires. Nanotechnology, 2009, 20, 115602.	2.6	22
48	Ambiguity in the Characterization of Chemically Modified Single-Walled Carbon Nanotubes: A Raman and Ultravioletâˆ'Visibleâˆ'Near-Infrared Study. Journal of Physical Chemistry C, 2009, 113, 5133-5140.	3.1	19
49	Chemical Characterization of Biological and Technological Surfaces. , 2009, , 233-277.		0
50	To Dope or Not To Dope: The Effect of Sonicating Single-Wall Carbon Nanotubes in Common Laboratory Solvents on Their Electronic Structure. Journal of the American Chemical Society, 2008, 130, 13417-13424.	13.7	67
51	Investigation of Corrosion-Inhibiting Aniline Oligomer Thin Films on Iron Using Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2008, 112, 18991-19004.	3.1	17
52	Roughening of Gold Atomic Steps Induced by Interaction with Tetrahydrofuran. Langmuir, 2008, 24, 2452-2458.	3.5	10
53	Universal Method for the Fabrication of Detachable Ultrathin Films of Several Transition Metal Oxides. ACS Nano, 2008, 2, 2363-2373.	14.6	36
54	Nanopatterning of Transition Metal Surfaces <i>via</i> Electrochemical Dimple Array Formation. ACS Nano, 2008, 2, 2453-2464.	14.6	39

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55	Carbon nanotube surface science. International Journal of Nanotechnology, 2008, 5, 900.	0.2	21
56	The role of proximity caps during the annealing of UV-ozone oxidized GaAs. Journal of Applied Physics, 2007, 101, 114321.	2.5	13
57	X-ray photoelectron spectroscopic study of the formation of catalytic gold nanoparticles on ultraviolet-ozone oxidized GaAs(100) substrates. Journal of Applied Physics, 2007, 101, 114322.	2.5	40
58	Robust Inorganic Membranes from Detachable Ultrathin Tantalum Oxide Films. Nano Letters, 2007, 7, 2676-2683.	9.1	16
59	Formation of Dimpled Tantalum Surfaces from Electropolishing. Journal of the Electrochemical Society, 2007, 154, C728.	2.9	25
60	Selective electroplating of copper lines on pre-patterned tantalum oxide thin films. Applied Surface Science, 2007, 253, 8962-8968.	6.1	8
61	Imaging of Pristine and Functionalized Carbon Nanotubes by Scanning Tunneling Microscopy. Journal of Scanning Probe Microscopy, 2007, 2, 51-57.	0.0	1
62	Formation of Highly Ordered Arrays of Dimples on Tantalum at the Nanoscale. Nano Letters, 2006, 6, 2995-2999.	9.1	65
63	The formation of supported monodisperse Au nanoparticles by UV/ozone oxidation process. Applied Surface Science, 2006, 253, 2348-2354.	6.1	28
64	Polymer-Functionalized Carbon Nanotubes Investigated by Solid-State Nuclear Magnetic Resonance and Scanning Tunneling Microscopy. Journal of Physical Chemistry B, 2004, 108, 11412-11418.	2.6	52
65	Long-Range Periodicity in Carbon Nanotube Sidewall Functionalization. Nano Letters, 2004, 4, 1541-1546.	9.1	62
66	Dispersion Interactions Enable the Self-Directed Growth of Linear Alkane Nanostructures Covalently Bound to Silicon. Journal of the American Chemical Society, 2004, 126, 16048-16050.	13.7	99
67	Displacement of surface arsenic atoms by insertion of oxygen atoms into Asâ€“Ga backbonds. Journal of Chemical Physics, 2003, 119, 9191-9198.	3.0	10
68	â€œGentle lithographyâ€•with benzene on Si(100). Applied Physics Letters, 2002, 81, 4422-4424.	3.3	32
69	McLeanet al.Reply. Physical Review Letters, 2002, 89, .	7.8	1
70	Patterning of Vinylferrocene on Hâ"Si(100) via Self-Directed Growth of Molecular Lines and STM-Induced Decomposition. Nano Letters, 2002, 2, 807-810.	9.1	139
71	Adsorption of atomic oxygen on GaAs(001)-(2Ã—4) and the resulting surface structures. Journal of Chemical Physics, 2001, 114, 3215-3223.	3.0	22
72	Relative reactivity of arsenic and gallium dimers and backbonds during the adsorption of molecular oxygen on GaAs(100)(6Ã—6). Journal of Chemical Physics, 2000, 113, 9217-9223.	3.0	22

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73	Chemically selective adsorption of molecular oxygen on GaAs(100)c(2Ã—8). Journal of Chemical Physics, 2000, 113, 9224-9232.	3.0	25
74	Localized excess negative charges in surface states of the clean Ga-rich GaAs(100)c(8Ã—2)/4Ã—2 reconstruction as imaged by scanning tunneling microscopy. Journal of Chemical Physics, 2000, 113, 2060-2063.	3.0	21
75	Anomalous Mobility of Strongly Bound Surface Species: Cl onGaAs(001)â^{ˆ’}c(8Ã—2). Physical Review Letters, 2000, 85, 1488-1491.	7.8	18
76	Clustering of Charged Adsorbates:Â Scanning Tunneling Microscopy Observations of Chlorine on Gallium-Rich GaAs(001)-c(8Ã—2). Journal of Physical Chemistry A, 1999, 103, 10364-10368.	2.5	15
77	Atomic structure determination for GaAs(001)-(6Ã—6) by STM. Surface Science, 1999, 424, 206-218.	1.9	27