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	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
2	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
3	Review on water quality sensors. Journal Physics D: Applied Physics, 2018, 51, 203002.	2.8	91
4	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
5	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
6	Formation of Highly Ordered Arrays of Dimples on Tantalum at the Nanoscale. Nano Letters, 2006, 6, 2995-2999.	9.1	65
7	Long-Range Periodicity in Carbon Nanotube Sidewall Functionalization. Nano Letters, 2004, 4, 1541-1546.	9.1	62
8	Metal Cation Detection in Drinking Water. Sensors, 2019, 19, 5134.	3.8	55
9	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
10	Reviewâ€"Two-Dimensional Boron Carbon Nitride: A Comprehensive Review. ECS Journal of Solid State Science and Technology, 2020, 9, 083004.	1.8	49
11	A carbon nanotube based resettable sensor for measuring free chlorine in drinking water. Applied Physics Letters, 2015, 106, .	3.3	46
12	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
13	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
14	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
15	Reviewâ€"Graphene-Based Water Quality Sensors. Journal of the Electrochemical Society, 2020, 167, 037539.	2.9	40
16	Nanopatterning of Transition Metal Surfaces via Electrochemical Dimple Array Formation. ACS Nano, 2008, 2, 2453-2464.	14.6	39
17	Solid State Sensors for Hydrogen Peroxide Detection. Biosensors, 2021, 11, 9.	4.7	38
18	Sponge-Like Porous Metal Surfaces from Anodization in Very Concentrated Acids. Journal of the Electrochemical Society, 2013, 160, C12-C18.	2.9	37

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19	Universal Method for the Fabrication of Detachable Ultrathin Films of Several Transition Metal Oxides. ACS Nano, 2008, 2, 2363-2373.	14.6	36
20	â€œGentle lithographyâ€•with benzene on Si(100). Applied Physics Letters, 2002, 81, 4422-4424.	3.3	32
21	The formation of supported monodisperse Au nanoparticles by UV/ozone oxidation process. Applied Surface Science, 2006, 253, 2348-2354.	6.1	28
22	Atomic structure determination for GaAs(001)-(6Ã—6) by STM. Surface Science, 1999, 424, 206-218.	1.9	27
23	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
24	Chemically selective adsorption of molecular oxygen on GaAs(100)c(2Ã—8). Journal of Chemical Physics, 2000, 113, 9224-9232.	3.0	25
25	Formation of Dimpled Tantalum Surfaces from Electropolishing. Journal of the Electrochemical Society, 2007, 154, C728.	2.9	25
26	Pencil-Drawn Chemiresistive Sensor for Free Chlorine in Water. , 2017, 1, 1-4.		25
27	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
28	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
29	The effect of GaAs(100) surface preparation on the growth of nanowires. Nanotechnology, 2009, 20, 115602.	2.6	22
30	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
31	Carbon nanotube surface science. International Journal of Nanotechnology, 2008, 5, 900.	0.2	21
32	Ambiguity in the Characterization of Chemically Modified Single-Walled Carbon Nanotubes: A Raman and Ultravioletâ^'Visibleâ^'Near-Infrared Study. Journal of Physical Chemistry C, 2009, 113, 5133-5140.	3.1	19
33	Anomalous Mobility of Strongly Bound Surface Species: Cl onGaAs(001)â^'c(8Ã—2). Physical Review Letters, 2000, 85, 1488-1491.	7.8	18
34	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
35	Robust Inorganic Membranes from Detachable Ultrathin Tantalum Oxide Films. Nano Letters, 2007, 7, 2676-2683.	9.1	16
36	Chemiresistive detection of silver ions in aqueous media. Sensors and Actuators B: Chemical, 2021, 328, 129023.	7.8	16

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37	Defect Engineering of Graphene to Modulate pH Response of Graphene Devices. Langmuir, 2021, 37, 12163-12178.	3.5	16
38	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
39	The role of proximity caps during the annealing of UV-ozone oxidized GaAs. Journal of Applied Physics, 2007, 101, 114321.	2.5	13
40	Chemical in situ modulation of doping interactions between oligoanilines and nanocarbon films. Surface Science, 2018, 676, 61-70.	1.9	12
41	Detection of free chlorine in water using graphene-like carbon based chemiresistive sensors. RSC Advances, 2022, 12, 2485-2496.	3.6	12
42	Impact of Surface Adsorption on Metalâ€“Ligand Binding of Phenanthrolines. Journal of Physical Chemistry C, 2021, 125, 21112-21123.	3.1	11
43	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
44	Roughening of Gold Atomic Steps Induced by Interaction with Tetrahydrofuran. Langmuir, 2008, 24, 2452-2458.	3.5	10
45	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
46	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
47	Selective electroplating of copper lines on pre-patterned tantalum oxide thin films. Applied Surface Science, 2007, 253, 8962-8968.	6.1	8
48	Defect Density-Dependent pH Response of Graphene Derivatives: Towards the Development of pH-Sensitive Graphene Oxide Devices. Nanomaterials, 2022, 12, 1801.	4.1	8
49	Ultrathin Gas Permeable Oxide Membranes for Chemical Sensing: Nanoporous Ta2O5 Test Study. Materials, 2015, 8, 6677-6684.	2.9	7
50	Robust Chemiresistive Sensor for Continuous Monitoring of Free Chlorine Using Graphene-like Carbon. ACS Sensors, 2018, 3, 451-457.	7.8	7
51	Chemical sensors based on surface charge transfer. ChemistrySelect, 2018, 3, .	1.5	7
52	Reagent-Free Hydrogen Peroxide Sensing Using Carbon Nanotube Chemiresistors with Electropolymerized Crystal Violet. ACS Applied Nano Materials, 2022, 5, 3957-3966.	5.0	7
53	Ordered nano-scale dimple pattern formation on a titanium alloy (Ti-6Al-4V). AIP Advances, 2012, 2, .	1.3	6
54	Reviewâ€”Solid State Sensors for Phosphate Detection in Environmental and Medical Diagnostics. Journal of the Electrochemical Society, 2022, 169, 077505.	2.9	6

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55	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
56	Graphene-silicon Schottky devices for operation in aqueous environments: Device performance and sensing application. Carbon, 2022, 194, 140-153.	10.3	5
57	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
58	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
59	Hydrogen peroxide chemiresistive detection platform with wide range of detection. , 2019, , .		4
60	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
61	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
62	McLeanet al.Reply. Physical Review Letters, 2002, 89, .	7.8	1
63	A carbon nanotube based resettable sensor for measuring free chlorine in drinking water. , 2014, , .		1
64	Surface Mobility and Nucleation of a Molecular Switch: Tetraaniline on Hematite. Journal of Physical Chemistry C, 2017, 121, 26350-26360.	3.1	1
65	Imaging of Pristine and Functionalized Carbon Nanotubes by Scanning Tunneling Microscopy. Journal of Scanning Probe Microscopy, 2007, 2, 51-57.	0.0	1
66	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
67	Nanocarbon Based Chemiresistive Detection of Monochloramine in Water. ECS Meeting Abstracts, 2022, MA2022-01, 2137-2137.	0.0	1
68	Modifying Nanocarbon Films with Switchable Dopant Molecules for the Detection of Aqueous Permanganate. ECS Meeting Abstracts, 2021, MA2021-01, 1554-1554.	0.0	0
69	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
70	Chemical Characterization of Biological and Technological Surfaces. , 2009, , 233-277.		0
71	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
72	Tuning the Conductivity of Molybdenum Disulfide (MoS2) Thin Films through Defect Engineering. ECS Meeting Abstracts, 2020, MA2020-01, 867-867.	0.0	0

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73	Chemiresistive Detection of Silver Ions in Aqueous Media. ECS Meeting Abstracts, 2020, MA2020-01, 2232-2232.	0.0	0
74	An Electropolymerized Self Assembled Monolayer of Crystal Violet for Chemiresistive Hydrogen Peroxide Sensor. ECS Meeting Abstracts, 2021, MA2021-02, 1919-1919.	0.0	0
75	Single-walled Carbon Nanotube Chemiresistive Sensors for the Identification and Quantification of Disinfectants. ECS Meeting Abstracts, 2021, MA2021-02, 1613-1613.	0.0	0
76	(Invited) Chemiresistive Water Quality Sensors: Challenges and Progress. ECS Meeting Abstracts, 2022, MA2022-01, 2135-2135.	0.0	0
77	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