K W Hipps

List of Publications by Year
in descending order

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78 papers	3,448 citations	186265 28 h-index	138484 58 g-index
79 all docs	79 docs citations	79 times ranked	2858 citing authors

#	Article	IF	Citations
1	Scanning Tunneling Microscopy of Metal Phthalocyanines:Â d7and d9Cases. Journal of the American Chemical Society, 1996, 118, 7197-7202.	13.7	359
2	Scanning Tunneling Microscopy of Metal Phthalocyanines:Â d6and d8Cases. Journal of Physical Chemistry B, 1997, 101, 5391-5396.	2.6	268
3	Scanning Tunneling Microscopy, Orbital-Mediated Tunneling Spectroscopy, and Ultraviolet Photoelectron Spectroscopy of Metal(II) Tetraphenylporphyrins Deposited from Vapor. Journal of the American Chemical Society, 2001, 123, 4073-4080.	13.7	246
4	Physical Properties and Metal Ion Specific Scanning Tunneling Microscopy Images of Metal(II) Tetraphenylporphyrins Deposited from Vapor onto Gold (111). Journal of Physical Chemistry B, 2000, 104, 11899-11905.	2.6	198
5	MOLECULAR ELECTRONICS: It's All About Contacts. Science, 2001, 294, 536-537.	12.6	191
6	Metal d-Orbital Occupation-Dependent Images in the Scanning Tunneling Microscopy of Metal Phthalocyanines. The Journal of Physical Chemistry, 1996, 100, 11207-11210.	2.9	183
7	A Self-Organized 2-Dimensional Bifunctional Structure Formed by Supramolecular Design. Journal of the American Chemical Society, 2002, 124, 2126-2127.	13.7	172
8	Scanning Tunneling Microscopy, Orbital-Mediated Tunneling Spectroscopy, and Ultraviolet Photoelectron Spectroscopy of Nickel(II) Octaethylporphyrin Deposited from Vapor. Journal of Physical Chemistry B, 2002, 106, 996-1003.	2.6	133
9	A Scanning Tunneling Microscopy and Spectroscopy Study of Vanadyl Phthalocyanine on Au(111):Â the Effect of Oxygen Binding and Orbital Mediated Tunneling on the Apparent Corrugation. Journal of Physical Chemistry B, 2000, 104, 5993-6000.	2.6	131
10	A Self-Organized Two-Dimensional Bimolecular Structure. Journal of Physical Chemistry B, 2003, 107, 2903-2909.	2.6	124
11	Kinetic and thermodynamic processes of organic species at the solutionâ€“solid interface: the view through an STM. Chemical Communications, 2015, 51, 4737-4749.	4.1	93
12	Single Molecule Imaging of Oxygenation of Cobalt Octaethylporphyrin at the Solution/Solid Interface: Thermodynamics from Microscopy. Journal of the American Chemical Society, 2012, 134, 14897-14904.	13.7	83
13	Orbital Mediated Tunneling in Vanadyl Phthalocyanine Observed in both Tunnel Diode and STM Environments. Journal of Physical Chemistry B, 2000, 104, 2444-2447.	2.6	75
14	Differing HOMO and LUMO Mediated Conduction in a Porphyrin Nanorod. Journal of the American Chemical Society, 2010, 132, 8554-8556.	13.7	66
15	Supramolecular Structures of Coronene and Alkane Acids at the Au(111)â"Solution Interface:Â A Scanning Tunneling Microscopy Study. Langmuir, 2005, 21, 919-923.	3.5	65
16	A Single Molecule Level Study of the Temperature-Dependent Kinetics for the Formation of Metal Porphyrin Monolayers on Au(111) from Solution. Journal of the American Chemical Society, 2014, 136, 2142-2148.	13.7	61
17	Effect of dispersion on surface interactions of cobalt(<scp>ii</scp>) octaethylporphyrin monolayer on Au(111) and HOPG(0001) substrates: a comparative first principles study. Physical Chemistry Chemical Physics, 2014, 16, 14096-14107.	2.8	58
18	A Scanning Tunneling Microscopy Study of Self-Assembled Nickel(II) Octaethylporphyrin Deposited from Solutions on HOPG. Langmuir, 2006, 22, 5697-5701.	3.5	55

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19	Interaction of wide band gap single crystals with 248 nm excimer laser radiation. IV. Positive ion emission from MgO and NaNO3. Journal of Applied Physics, 1996, 80, 6452-6466.	2.5	49
20	Stability of a Surface Adlayer at Elevated Temperature:â€‰ Coronene and Heptanoic Acid on Au(111). Journal of Physical Chemistry C, 2008, 112, 2026-2031.	3.1	49
21	Correlating elastic properties and molecular organization of an ionic organic nanostructure. Nanoscale, 2014, 6, 316-327.	5.6	45
22	A Self-Assembled Two-Dimensional Zwitterionic Structure: H₆TSPP Studied on Graphite. Journal of Physical Chemistry C, 2011, 115, 3990-3999.	3.1	38
23	Kinetic and Thermodynamic Control in Porphyrin and Phthalocyanine Self-Assembled Monolayers. Langmuir, 2018, 34, 3-17.	3.5	37
24	Electron Tunneling, a Quantum Probe for the Quantum World of Nanotechnology. Journal of Chemical Education, 2005, 82, 704.	2.3	33
25	Controlled Manipulation of Self-Organized Ni(II)â˜Octaethylporphyrin Molecules Deposited from Solution on HOPG with a Scanning Tunneling Microscope. Journal of Physical Chemistry C, 2007, 111, 17516-17520.	3.1	32
26	Temperature Stability of Three Commensurate Surface Structures of Coronene Adsorbed on Au(111) from Heptanoic Acid in the 0 to 60 Â°C Range. Journal of Physical Chemistry C, 2013, 117, 2914-2919.	3.1	32
27	Comprehensive structureâ€“function correlation of photoactive ionic Ï€-conjugated supermolecular assemblies: an experimental and computational study. Journal of Materials Chemistry C, 2016, 4, 10223-10239.	5.5	32
28	EPR, Electronic, and Vibrational Spectra of the CuCl64- Anion in [tris(2-aminoethyl)amineH4]2[CuCl6]Cl4Â·2H2O and Crystal Structure of the Complex. Inorganic Chemistry, 1996, 35, 5300-5303.	4.0	28
29	Kinetically Trapped Two-Component Self-Assembled Adlayer. Journal of Physical Chemistry C, 2015, 119, 25364-25376.	3.1	27
30	Desorption Kinetics and Activation Energy for Cobalt Octaethylporphyrin from Graphite at the Phenyloctane Solutionâ€“Graphite Interface: An STM Study. Journal of Physical Chemistry C, 2015, 119, 9386-9394.	3.1	26
31	A Systematic Approach toward Designing Functional Ionic Porphyrin Crystalline Materials. Journal of Physical Chemistry C, 2018, 122, 22803-22820.	3.1	25
32	Spontaneous Solution-Phase Redox Deposition of a Dense Cobalt(II) Phthalocyanine Monolayer on Gold. Journal of Physical Chemistry B, 2004, 108, 17003-17006.	2.6	24
33	Charge transfer induced chemical reaction of tetracyano-p-quinodimethane adsorbed on graphene. RSC Advances, 2012, 2, 10579.	3.6	24
34	Hyperbranched crystalline nanostructure produced from ionic Ï€-conjugated molecules. Chemical Communications, 2015, 51, 2663-2666.	4.1	23
35	Surface directed reversible imidazole ligation to nickel(<scp>ii</scp>) octaethylporphyrin at the solution/solid interface: a single molecule level study. Physical Chemistry Chemical Physics, 2016, 18, 20819-20829.	2.8	23
36	Predicting the Size Distribution in Crystallization of TSPP:TMPyP Binary Porphyrin Nanostructures in a Batch Desupersaturation Experiment. Crystal Growth and Design, 2014, 14, 6599-6606.	3.0	22

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37	Organization of Vanadyl and Metal-Free Tetraphenoxyphthalocyanine Complexes on Highly Oriented Pyrolytic Graphite in the Presence of Paraffinic Solvents: A STM Study. Journal of Physical Chemistry C, 2008, 112, 20347-20356.	3.1	20
38	Scanning Tunneling Microscopy and Orbital-Mediated Tunneling Spectroscopy Study of 1,5-Di(octyloxy)anthracene Adsorbed on Highly Ordered Pyrolytic Graphite from Various Solvents and in Different Environments. Journal of Physical Chemistry C, 2007, 111, 7735-7740.	3.1	19
39	Influence of the Central Metal Ion on the Desorption Kinetics of a Porphyrin from the Solution/HOPG Interface. Journal of Physical Chemistry C, 2016, 120, 18140-18150.	3.1	18
40	Structure, Properties, and Reactivity of Porphyrins on Surfaces and Nanostructures with Periodic DFT Calculations. Applied Sciences (Switzerland), 2020, 10, 740.	2.5	18
41	Protonation state of core nitrogens in the meso-tetra(4-carboxyphenyl)porphyrin impacts the chemical and physical properties of nanostructures formed in acid solutions. Journal of Porphyrins and Phthalocyanines, 2012, 16, 1233-1243.	0.8	17
42	Amorphous or nanocrystalline AlN thin films formed from AlN: H. Journal of Materials Research, 1994, 9, 1449-1455.	2.6	15
43	Polymorphic, Porous, and Hostâ€“Guest Nanostructures Directed by Monolayerâ€“Substrate Interactions: Epitaxial Self-Assembly Study of Cyclic Trinuclear Au(I) Complexes on HOPG at the Solutionâ€“Solid Interface. Journal of Physical Chemistry C, 2015, 119, 24844-24858.	3.1	15
44	Tuning the optoelectronic characteristics of ionic organic crystalline assemblies. Journal of Materials Chemistry C, 2018, 6, 4041-4056.	5.5	15
45	Nanomechanical properties of ordered phthalocyanine Langmuirâ€“Blodgett layers. Journal of Materials Research, 2004, 19, 1461-1470.	2.6	14
46	Goldâ€coated tungsten tips for scanning tunneling microscopy. Review of Scientific Instruments, 1993, 64, 1495-1501.	1.3	13
47	Photoconductive behavior of binary porphyrin crystalline assemblies. Journal of Porphyrins and Phthalocyanines, 2017, 21, 569-580.	0.8	12
48	The formation of transition aluminas during oxidation of AlN. Journal of Materials Science Letters, 1999, 18, 877-879.	0.5	11
49	Cooperativity and coverage dependent molecular desorption in self-assembled monolayers: computational case study with coronene on Au(111) and HOPG. Physical Chemistry Chemical Physics, 2019, 21, 10505-10513.	2.8	11
50	Balancing Noncovalent Interactions in the Self-Assembly of Nonplanar Aromatic Carboxylic Acid MOF Linkers at the Solution/Solid Interface: HOPG vs Au(111). Langmuir, 2019, 35, 5271-5280.	3.5	11
51	STM Investigation of the Y[C6S-Pc]2 and Y[C4O-Pc]2Complex at the Solutionâ€“Solid Interface: Substrate Effects, Submolecular Resolution, and Vacancies. Journal of Physical Chemistry C, 2021, 125, 1421-1431.	3.1	10
52	A new variable temperature solution-solid interface scanning tunneling microscope. Review of Scientific Instruments, 2014, 85, 103701.	1.3	9
53	Temperature Independence of Orbital Mediated Tunneling in Cobalt(II) Phthalocyanine. Journal of Physical Chemistry C, 2010, 114, 13349-13353.	3.1	8
54	Functional Porphyrin Nanostructures for Molecular Electronics: Structural, Mechanical, and Electronic Properties of Self-Assembled Ionic Metal-Free Porphyrins. , 2016, , 69-103.		8

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55	Cooperative Binding of 1-Phenylimidazole to Cobalt(II) Octaethylporphyrin on Graphite: A Quantitative Imaging and Computational Study at Molecular Resolution. Journal of Physical Chemistry C, 2020, 124, 18639-18649.	3.1	8
56	Scanning Tunneling Microscopy Reveals Surface Diffusion of Single Double-Decker Phthalocyanine Molecules at the Solution/Solid Interface. Journal of Physical Chemistry C, 2022, 126, 4140-4149.	3.1	8
57	Quantifying reversible nitrogenous ligand binding to Co(<scp>ii</scp>) porphyrin receptors at the solution/solid interface and in solution. Physical Chemistry Chemical Physics, 2020, 22, 24226-24235.	2.8	6
58	The use of scanning conduction microscopy to probe abrasion of insulating thin films. Review of Scientific Instruments, 1995, 66, 3802-3806.	1.3	5
59	Optimization of Film Stresses Utilized in Composite Piezoelectric Membrane Microgenerators. Materials Research Society Symposia Proceedings, 2003, 795, 493.	0.1	5
60	Tunneling Spectroscopy of Organic Monolayers and Single Molecules. Topics in Current Chemistry, 2011, 313, 189-215.	4.0	5
61	Single molecule level studies of reversible ligand binding to metal porphyrins at the solution/solid interface. Journal of Porphyrins and Phthalocyanines, 2020, 24, 993-1002.	0.8	5
62	Persistent Conductivity in TPyP:TSPP Organic Nanorods Induced by Ion Bombardment. Journal of Physical Chemistry C, 2016, 120, 14962-14968.	3.1	5
63	Alkynyl Linkers as a Design Tool to Gain Control over the Self-Assembly of Meso-Substituted Porphyrins on HOPG. Langmuir, 2020, 36, 4897-4907.	3.5	4
64	Characterizing the CH₃SSCH₃â€“Au(111) System From Single Molecules To Full Surface Coverage: A Scanning Tunneling Microscopy Study. Journal of Physical Chemistry C, 2021, 125, 21988-21996.	3.1	4
65	Single-Molecule Kinetic Analysis of Oxygenation of Co(II) Porphyrin at the Solution/Solid Interface. Journal of Physical Chemistry Letters, 2022, 13, 4918-4923.	4.6	4
66	Tunnelling reveals forbidden transitions. Nature, 1987, 326, 107-108.	27.8	3
67	Physical Chemistry at the Nanometer Scale. Journal of Chemical Education, 2005, 82, 693.	2.3	3
68	Morphology Dependent Conductivity and Photoconductivity of Ionic Porphyrin Crystalline Assemblies. ECS Journal of Solid State Science and Technology, 2020, 9, 061010.	1.8	3
69	Mechanical behavior of crystalline ionic porphyrins. Journal of Porphyrins and Phthalocyanines, 2019, 23, 154-165.	0.8	2
70	Chemical Effects of substrate Temperature and Feed Gas Composition on Ion Beam Deposited AlN and AlN:H. Materials Research Society Symposia Proceedings, 1995, 388, 367.	0.1	1
71	A scanning conduction microscopic method for probing abrasion of insulating thin films. Tribology Letters, 1995, 1, 159.	2.6	1
72	Role of the Supporting Surface in the Thermodynamics and Cooperativity of Axial Ligand Binding to Metalloporphyrins at Interfaces. Current Organic Chemistry, 2022, 26, 553-562.	1.6	1

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73	Scanning Conduction Microscopy: A Method of Probing Abrasion of Insulating Thin Films on Conducting Substrates. Materials Research Society Symposia Proceedings, 1995, 385, 221.	0.1	0
74	A New variable temperature solution-solid interface scanning tunneling microscope. Microscopy and Microanalysis, 2015, 21, 2187-2188.	0.4	0
75	Structure-Function Correlation of Photoactive Ionic pi-Conjugated Binary Porphyrin Assemblies. MRS Advances, 2017, 2, 2267-2273.	0.9	0
76	Mechanical behavior of crystalline ionic porphyrins. , 2021, , 855-866.		0
77	Quantifying Reversible Nitrogenous Ligand Binding to Co(II) Porphyrin Receptors at the Solution/Solid Interface and in Solution. ECS Meeting Abstracts, 2021, MA2021-01, 788-788.	0.0	0
78	STM Investigation of Y[C6s-Pc]2 and Y[C4o-Pc]2 Complexes at the Solution/Solid Interface: Substrate Effects, Sub-Molecular Resolution, and Covalently Saturated Sulfur. ECS Meeting Abstracts, 2021, MA2021-01, 787-787.	0.0	0