Amy V Walker

List of Publications by Year
in descending order

82 papers	1,627 citations	304743 22 h-index	330143 37 g-index
85 all docs	85 docs citations	85 times ranked	1750 citing authors

#	Article	IF	Citations
1	Bond Insertion, Complexation, and Penetration Pathways of Vapor-Deposited Aluminum Atoms with HO- and CH3O-Terminated Organic Monolayers. Journal of the American Chemical Society, 2002, 124, 5528-5541.	13.7	195
2	The Dynamics of Noble Metal Atom Penetration through Methoxy-Terminated Alkanethiolate Monolayers. Journal of the American Chemical Society, 2004, 126, 3954-3963.	13.7	163
3	Matrix-Enhanced Secondary Ion Mass Spectrometry (ME SIMS) Using Room Temperature Ionic Liquid Matrices. Analytical Chemistry, 2010, 82, 4413-4419.	6.5	84
4	Molecular Self-Assembly at Bare Semiconductor Surfaces:â€‰ Investigation of the Chemical and Electronic Properties of the Alkanethiolateâ”GaAs(001) Interface. Journal of Physical Chemistry C, 2007, 111, 4226-4234.	3.1	80
5	Benzaldehyde-Functionalized Polymer Vesicles. ACS Nano, 2009, 3, 673-681.	14.6	66
6	Why Is SIMS Underused in Chemical and Biological Analysis? Challenges and Opportunities. Analytical Chemistry, 2008, 80, 8865-8870.	6.5	65
7	Toward Molecular Electronic Circuitry:Â Selective Deposition of Metals on Patterned Self-Assembled Monolayer Surfaces. Journal of the American Chemical Society, 2005, 127, 12160-12161.	13.7	41
8	Dynamics of the Interaction of Vapor-Deposited Copper with Alkanethiolate Monolayers:Â Bond Insertion, Complexation, and Penetration Pathways. Journal of Physical Chemistry B, 2006, 110, 12543-12554.	2.6	41
9	Prospects for imaging with TOF-SIMS using gold liquid metal ion sources. Applied Surface Science, 2003, 203-204, 198-200.	6.1	38
10	Dependence of Patterned Binary Alkanethiolate Self-Assembled Monolayers on â€œUV-Photopatterningâ€• Conditions and Evolution with Time, Terminal Group, and Methylene Chain Length. Langmuir, 2006, 22, 11420-11425.	3.5	33
11	Making Nanoflowerbeds: Reaction Pathways Involved in the Selective Chemical Bath Deposition of ZnS on Functionalized Alkanethiolate Self-Assembled Monolayers. ACS Nano, 2009, 3, 370-378.	14.6	31
12	Site-Selectively Functionalizing Microelectrode Arrays: The Use of Cu(I)-Catalysts. Langmuir, 2011, 27, 11199-11205.	3.5	29
13	Building addressable libraries: a site-selective click-reaction strategy for rapidly assembling mass spectrometry cleavable linkers. Chemical Communications, 2009, , 5573.	4.1	28
14	UV Photooxidation and Photopatterning of Alkanethiolate Self-Assembled Monolayers (SAMs) on GaAs (001). Langmuir, 2007, 23, 8876-8881.	3.5	26
15	Investigation of the Mechanism of Electroless Deposition of Copper on Functionalized Alkanethiolate Self-Assembled Monolayers Adsorbed on Gold. Langmuir, 2007, 23, 12577-12582.	3.5	25
16	Dynamics of Interaction of Magnesium Atoms on Methoxy-Terminated Self-Assembled Monolayers:â€‰ An Example of a Reactive Metal with a Low Sticking Probability. Journal of Physical Chemistry C, 2007, 111, 765-772.	3.1	24
17	Ionic Liquid Matrix-Enhanced Secondary Ion Mass Spectrometry: The Role of Proton Transfer. Journal of the American Society for Mass Spectrometry, 2013, 24, 348-355.	2.8	24
18	Solvation of zero-valent metals in organic thin films. Chemical Physics Letters, 2003, 369, 615-620.	2.6	23

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19	Dynamics of Reactive Metal Adsorption on Organic Thin Films. Journal of Physical Chemistry C, 2007, 111, 8543-8556.	3.1	23
20	Building Robust and Reliable Molecular Constructs: Patterning, Metallic Contacts, and Layer-by-Layer Assembly. Langmuir, 2010, 26, 13778-13785.	3.5	23
21	Selective Electroless Deposition of Copper on Organic Thin Films with Improved Morphology. Langmuir, 2011, 27, 13022-13028.	3.5	23
22	Synthesis of WN(NMe₂)₃ as a Precursor for the Deposition of WN_x Nanospheres. European Journal of Inorganic Chemistry, 2012, 2012, 4579-4584.	2.0	22
23	Chemical Bath Deposition of ZnO on Functionalized Self-Assembled Monolayers: Selective Deposition and Control of Deposit Morphology. Langmuir, 2015, 31, 1421-1428.	3.5	22
24	Building Addressable Libraries:Â The Use of a Mass Spectrometry Cleavable Linker for Monitoring Reactions on a Microelectrode Array. Journal of the American Chemical Society, 2006, 128, 16020-16021.	13.7	21
25	Investigation of the Mechanism of Nickel Electroless Deposition on Functionalized Self-Assembled Monolayers. Langmuir, 2011, 27, 6932-6939.	3.5	21
26	Toward a new world of molecular devices: Making metallic contacts to molecules. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, 050816.	2.1	21
27	Electron Beam-Induced Damage of Alkanethiolate Self-Assembled Monolayers Adsorbed on GaAs (001): A Static SIMS Investigation. Journal of Physical Chemistry C, 2010, 114, 5400-5409.	3.1	20
28	Interfacial graphene growth in the Ni/SiO₂ system using pulsed laser deposition. Applied Physics Letters, 2013, 103, 134102.	3.3	20
29	Facile synthesis of stable, water soluble, dendron-coated gold nanoparticles. Nanoscale, 2017, 9, 3128-3132.	5.6	19
30	Room-temperature Chemical Vapor Deposition of Aluminum and Aluminum Oxides on Alkanethiolate Self-Assembled Monolayers. Journal of Physical Chemistry C, 2008, 112, 2091-2098.	3.1	18
31	An investigation of secondary ion yield enhancement using Bi_n²⁺ (n=1,) Tj ETQq1 1 0.784314 rgBT /O	2.8	17
32	Synthesis of Nickel Nanowires via Electroless Nanowire Deposition on Micropatterned Substrates. Langmuir, 2011, 27, 11292-11295.	3.5	17
33	Room Temperature Atomic Layer-like Deposition of ZnO on Functionalized Self-Assembled Monolayers. Journal of Physical Chemistry C, 2015, 119, 1091-1100.	3.1	16
34	UV Photooxidation of a Homologous Series of n-Alkanethiolate Monolayers on GaAs(001):â€‰ A Static SIMS Investigation. Journal of Physical Chemistry C, 2008, 112, 797-805.	3.1	15
35	UV Photoactivated Room Temperature CVD of Aluminum on Functionalized Self-Assembled Monolayers Adsorbed on Au. Langmuir, 2012, 28, 16909-16916.	3.5	15
36	Partially fluorinated oxo-alkoxide tungsten(<scp>vi</scp>) complexes as precursors for deposition of WO_x nanomaterials. Dalton Transactions, 2014, 43, 9226-9233.	3.3	15

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37	Time-of-flight secondary ion mass spectrometry, fluorescence microscopy and scanning electron microscopy: Combined tools for monitoring the process of patterning and layer-by-layer assembly of synthetic and biological materials. Colloids and Surfaces B: Biointerfaces, 2008, 65, 85-91.	5.0	14
38	Comparison of Chemical Lithography Using Alkanethiolate Self-Assembled Monolayers on GaAs (001) and Au. Langmuir, 2010, 26, 4523-4528.	3.5	14
39	Selective formation of monodisperse CdSe nanoparticles on functionalized self-assembled monolayers using chemical bath deposition. Electrochimica Acta, 2010, 55, 8126-8134.	5.2	13
40	The use of a detectable, mass-spectrometry-cleavable linker for quality control on an addressable microelectrode array. Electrochemistry Communications, 2008, 10, 973-976.	4.7	12
41	Formation of Multilayer Ultrathin Assemblies Using Chemical Lithography. Langmuir, 2010, 26, 8441-8449.	3.5	12
42	Electron-Beam-Induced Damage of Alkanethiolate Self-Assembled Monolayers (SAMs): Dependence on Monolayer Structure and Substrate Conductivity. Journal of Physical Chemistry C, 2010, 114, 9362-9369.	3.1	11
43	Towards the Rational Design of Ionic Liquid Matrices for Secondary Ion Mass Spectrometry: Role of the Anion. Journal of the American Society for Mass Spectrometry, 2013, 24, 1288-1295.	2.8	11
44	Law and Disorder: Special Stacking Unitsâ€"Building the Intergrowth Ce₆Co₅Ge₁₆. Inorganic Chemistry, 2019, 58, 6037-6043.	4.0	11
45	Morphological Control of PbS Grown on Functionalized Self-Assembled Monolayers by Chemical Bath Deposition. Langmuir, 2014, 30, 6954-6962.	3.5	10
46	New horizons in sputter depth profiling inorganics with giant gas cluster sources: Niobium oxide thin films. Surface and Interface Analysis, 2017, 49, 991-999.	1.8	10
47	Characterization of gold contacts in GaAs-based molecular devices: Relating structure to electrical properties. Chemical Physics Letters, 2009, 472, 220-223.	2.6	9
48	Zinc oxide Chemical Bath Deposition on Functionalized organic thin films: Formation of nanorods, nanorockets and nanoflowers. Thin Solid Films, 2016, 606, 106-112.	1.8	9
49	Photochemical CVD of Ru on functionalized self-assembled monolayers from organometallic precursors. Journal of Chemical Physics, 2017, 146, 052816.	3.0	9
50	Role of the Reducing Agent in the Electroless Deposition of Copper on Functionalized SAMs. Langmuir, 2017, 33, 8663-8670.	3.5	9
51	Femtosecond laser desorption ionization mass spectrometry imaging and multivariate analysis of lipids in pancreatic tissue. Biointerphases, 2018, 13, 03B416.	1.6	9
52	Plasma polymerization of poly(3,4-ethylenedioxyethene) films: The influence of plasma gas phase chemistry. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	2.1	8
53	From Nanowires to Nanopores: A Versatile Method for Electroless Deposition of Nanostructures on Micropatterned Organic Substrates. Langmuir, 2016, 32, 2668-2674.	3.5	7
54	Modulating the Electronic Properties of Auâ€"MoS₂ Interfaces Using Functionalized Self-Assembled Monolayers. Langmuir, 2020, 36, 682-688.	3.5	7

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55	Optimized analysis of imaging timeâ€ofâ€flight SIMS data. Surface and Interface Analysis, 2013, 45, 479-482.	1.8	6
56	On including nonlinearity in multivariate analysis of imaging SIMS data. Surface and Interface Analysis, 2014, 46, 221-224.	1.8	6
57	Statistically rigorous analysis of imaging SIMS data in the presence of detector saturation. Surface and Interface Analysis, 2015, 47, 889-895.	1.8	6
58	Polytype control of MoS2 using chemical bath deposition. Journal of Chemical Physics, 2019, 150, 174701.	3.0	5
59	Room temperature atomic layerlike deposition of ZnS on organic thin films: Role of substrate functional groups and precursors. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	2.1	4
60	Emergence of Magnetic States in Pr₂Fe_{4â€“x}Co_xSb₅ (1 < x < 2.5). Inorganic Chemistry, 2016, 55, 1946-1951.	4.0	4
61	Secondary Ion Mass Spectrometry. , 2017, , 44-49.		4
62	Effect of Ethanolamines on the Electroless Deposition of Copper on Functionalized Organic Surfaces. Langmuir, 2018, 34, 4142-4149.	3.5	4
63	Photochemistry of (Î·³-allyl)Ru(CO)₃X Precursors for Photoassisted Chemical Vapor Deposition. Organometallics, 2019, 38, 4363-4370.	2.3	4
64	Chemical Bath Deposition of Copper Sulfide on Functionalized SAMs: An Unusual Selectivity Mechanism. Langmuir, 2020, 36, 3119-3126.	3.5	4
65	Ionic liquid matrices for improved detection of proteins and polymers in timeâ€ofâ€flight secondary ion mass spectrometry. Surface and Interface Analysis, 2014, 46, 15-17.	1.8	3
66	Effects of protein species and surface physicochemical features on the deposition of nanoparticles onto protein-coated planar surfaces. RSC Advances, 2016, 6, 75491-75498.	3.6	3
67	Toward understanding weak matrix effects in TOF SIMS. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2018, 36, 03F127.	1.2	3
68	(Invited) Using Surface Chemistry to Direct the Deposition of Nano-objects for Electronics. ECS Transactions, 2018, 86, 89-101.	0.5	3
69	6â€Phenylhexyl silane derivatized, sputtered silicon solid phase microextraction fiber for the partsâ€perâ€trillion detection of polyaromatic hydrocarbons in water and baby formula. Journal of Separation Science, 2021, 44, 2824-2836.	2.5	3
70	Structure and Oxidation States of Giant Unit Cell Compound Dy 117+ x Fe 57â€“ y Sn 112â€“ z. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2017, 643, 2038-2044.	1.2	2
71	Photochemistry of 1,5-Cyclooctadiene Platinum Complexes for Photoassisted Chemical Vapor Deposition. Organometallics, 2020, 39, 4565-4574.	2.3	2
72	Low temperature platinum chemical vapor deposition on functionalized self-assembled monolayers. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	2.1	2

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73	Photochemistry of (Î·⁴-diene)Ru(CO)₃ Complexes as Precursor Candidates for Photoassisted Chemical Vapor Deposition. Organometallics, 2022, 41, 761-775.	2.3	2
74	Secondary Ion Mass Spectrometry. , 2010, , 2504-2510.		1
75	Towards Molecular Electronics: Solution-Based Methods for Selective Deposition of Metals and Semiconductors. , 2011, , .		1
76	Materials Analysis Using Secondary Ion Mass Spectrometry: Challenges and Opportunities. Microscopy and Microanalysis, 2017, 23, 1042-1043.	0.4	1
77	Application of visible-light photosensitization to form alkyl-radical-derived thin films on gold. Beilstein Journal of Nanotechnology, 2017, 8, 1863-1877.	2.8	1
78	Highâ€resolution peak analysis in TOF SIMS data. Surface and Interface Analysis, 2021, 53, 53-67.	1.8	1
79	Photoactivated Ru chemical vapor deposition using (Î·3-allyl)Ru(CO)3X (Xâ€‰=â€‰Cl, Br, I): From molecular adsorption to Ru thin film deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, 023404.	2.1	1
80	Cuprous or cupric? How substrate polarity can select for different phases of copper sulfide films in chemical bath deposition. Journal of Chemical Physics, 2021, 154, 144704.	3.0	0
81	(Invited) Using Surface Chemistry to Direct the Deposition of Nano-objects for Electronics. ECS Meeting Abstracts, 2018, , .	0.0	0
82	Preface to special collection: 30 years of the Nellie Yeoh Whetten Awardâ€”celebrating the women of the AVS. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 061601.	2.1	0