

# Amy V Walker

## List of Publications by Year in descending order

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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	Photoactivated Ru chemical vapor deposition using ( $\eta^3$ -allyl)Ru(CO) <sub>3</sub> X (X = Cl, Br, I): From molecular adsorption to Ru thin film deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2022, 40, 023404.	2.1	1
2	Photochemistry of ( $\eta^4$ -diene)Ru(CO) <sub>3</sub> Complexes as Precursor Candidates for Photoassisted Chemical Vapor Deposition. <i>Organometallics</i> , 2022, 41, 761-775.	2.3	2
3	High-resolution peak analysis in TOF SIMS data. <i>Surface and Interface Analysis</i> , 2021, 53, 53-67.	1.8	1
4	Cuprous or cupric? How substrate polarity can select for different phases of copper sulfide films in chemical bath deposition. <i>Journal of Chemical Physics</i> , 2021, 154, 144704.	3.0	0
5	$\eta^6$ -Phenylhexyl silane derivatized, sputtered silicon solid phase microextraction fiber for the parts-per-trillion detection of polyaromatic hydrocarbons in water and baby formula. <i>Journal of Separation Science</i> , 2021, 44, 2824-2836.	2.5	3
6	Modulating the Electronic Properties of Au/MoS <sub>2</sub> Interfaces Using Functionalized Self-Assembled Monolayers. <i>Langmuir</i> , 2020, 36, 682-688.	3.5	7
7	Photochemistry of 1,5-Cyclooctadiene Platinum Complexes for Photoassisted Chemical Vapor Deposition. <i>Organometallics</i> , 2020, 39, 4565-4574.	2.3	2
8	Low temperature platinum chemical vapor deposition on functionalized self-assembled monolayers. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020, 38, .	2.1	2
9	Chemical Bath Deposition of Copper Sulfide on Functionalized SAMs: An Unusual Selectivity Mechanism. <i>Langmuir</i> , 2020, 36, 3119-3126.	3.5	4
10	Preface to special collection: 30 years of the Nellie Yeoh Whetten Award—celebrating the women of the AVS. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020, 38, 061601.	2.1	0
11	Photochemistry of ( $\eta^3$ -allyl)Ru(CO) <sub>3</sub> X Precursors for Photoassisted Chemical Vapor Deposition. <i>Organometallics</i> , 2019, 38, 4363-4370.	2.3	4
12	Polytype control of MoS <sub>2</sub> using chemical bath deposition. <i>Journal of Chemical Physics</i> , 2019, 150, 174701.	3.0	5
13	Law and Disorder: Special Stacking Units—Building the Intergrowth Ce <sub>6</sub> Co <sub>5</sub> Ge <sub>16</sub> . <i>Inorganic Chemistry</i> , 2019, 58, 6037-6043.	4.0	11
14	Femtosecond laser desorption ionization mass spectrometry imaging and multivariate analysis of lipids in pancreatic tissue. <i>Biointerphases</i> , 2018, 13, 03B416.	1.6	9
15	Toward understanding weak matrix effects in TOF SIMS. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2018, 36, 03F127.	1.2	3
16	Effect of Ethanolamines on the Electroless Deposition of Copper on Functionalized Organic Surfaces. <i>Langmuir</i> , 2018, 34, 4142-4149.	3.5	4
17	(Invited) Using Surface Chemistry to Direct the Deposition of Nano-objects for Electronics. <i>ECS Transactions</i> , 2018, 86, 89-101.	0.5	3
18	(Invited) Using Surface Chemistry to Direct the Deposition of Nano-objects for Electronics. <i>ECS Meeting Abstracts</i> , 2018, .	0.0	0

#	ARTICLE	IF	CITATIONS
19	Plasma polymerization of poly(3,4-ethylenedioxyethene) films: The influence of plasma gas phase chemistry. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2017, 35, .	2.1	8
20	Facile synthesis of stable, water soluble, dendron-coated gold nanoparticles. <i>Nanoscale</i> , 2017, 9, 3128-3132.	5.6	19
21	Photochemical CVD of Ru on functionalized self-assembled monolayers from organometallic precursors. <i>Journal of Chemical Physics</i> , 2017, 146, 052816.	3.0	9
22	Role of the Reducing Agent in the Electroless Deposition of Copper on Functionalized SAMs. <i>Langmuir</i> , 2017, 33, 8663-8670.	3.5	9
23	New horizons in sputter depth profiling inorganics with giant gas cluster sources: Niobium oxide thin films. <i>Surface and Interface Analysis</i> , 2017, 49, 991-999.	1.8	10
24	Structure and Oxidation States of Giant Unit Cell Compound Dy <sub>117</sub> + x Fe <sub>57</sub> y Sn <sub>112</sub> z. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2017, 643, 2038-2044.	1.2	2
25	Materials Analysis Using Secondary Ion Mass Spectrometry: Challenges and Opportunities. <i>Microscopy and Microanalysis</i> , 2017, 23, 1042-1043.	0.4	1
26	Secondary Ion Mass Spectrometry. , 2017, , 44-49.		4
27	Application of visible-light photosensitization to form alkyl-radical-derived thin films on gold. <i>Beilstein Journal of Nanotechnology</i> , 2017, 8, 1863-1877.	2.8	1
28	Zinc oxide Chemical Bath Deposition on Functionalized organic thin films: Formation of nanorods, nanorockets and nanoflowers. <i>Thin Solid Films</i> , 2016, 606, 106-112.	1.8	9
29	Effects of protein species and surface physicochemical features on the deposition of nanoparticles onto protein-coated planar surfaces. <i>RSC Advances</i> , 2016, 6, 75491-75498.	3.6	3
30	Emergence of Magnetic States in Pr <sub>2</sub> Fe <sub>4</sub> Co <sub>x</sub> Sb <sub>5</sub> (1 < x < 2.5). <i>Inorganic Chemistry</i> , 2016, 55, 1946-1951.	4.0	4
31	From Nanowires to Nanopores: A Versatile Method for Electroless Deposition of Nanostructures on Micropatterned Organic Substrates. <i>Langmuir</i> , 2016, 32, 2668-2674.	3.5	7
32	Statistically rigorous analysis of imaging SIMS data in the presence of detector saturation. <i>Surface and Interface Analysis</i> , 2015, 47, 889-895.	1.8	6
33	Room Temperature Atomic Layer-like Deposition of ZnO on Functionalized Self-Assembled Monolayers. <i>Journal of Physical Chemistry C</i> , 2015, 119, 1091-1100.	3.1	16
34	Chemical Bath Deposition of ZnO on Functionalized Self-Assembled Monolayers: Selective Deposition and Control of Deposit Morphology. <i>Langmuir</i> , 2015, 31, 1421-1428.	3.5	22
35	Room temperature atomic layerlike deposition of ZnS on organic thin films: Role of substrate functional groups and precursors. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2015, 33, .	2.1	4
36	Morphological Control of PbS Grown on Functionalized Self-Assembled Monolayers by Chemical Bath Deposition. <i>Langmuir</i> , 2014, 30, 6954-6962.	3.5	10

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37	Partially fluorinated oxo-alkoxide tungsten( $\text{WO}_x$ ) complexes as precursors for deposition of $\text{WO}_x$ nanomaterials. Dalton Transactions, 2014, 43, 9226-9233.	3.3	15
38	Ionic liquid matrices for improved detection of proteins and polymers in time-of-flight secondary ion mass spectrometry. Surface and Interface Analysis, 2014, 46, 15-17.	1.8	3
39	On including nonlinearity in multivariate analysis of imaging SIMS data. Surface and Interface Analysis, 2014, 46, 221-224.	1.8	6
40	Optimized analysis of imaging time-of-flight SIMS data. Surface and Interface Analysis, 2013, 45, 479-482.	1.8	6
41	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
42	Interfacial graphene growth in the Ni/SiO <sub>2</sub> system using pulsed laser deposition. Applied Physics Letters, 2013, 103, 134102.	3.3	20
43	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
44	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
45	UV Photoactivated Room Temperature CVD of Aluminum on Functionalized Self-Assembled Monolayers Adsorbed on Au. Langmuir, 2012, 28, 16909-16916.	3.5	15
46	Synthesis of $\text{WN}(\text{NMe}_2)_3$ as a Precursor for the Deposition of $\text{WN}$ Nanospheres. European Journal of Inorganic Chemistry, 2012, 2012, 4579-4584.	2.0	22
47	Site-Selectively Functionalizing Microelectrode Arrays: The Use of Cu(I)-Catalysts. Langmuir, 2011, 27, 11199-11205.	3.5	29
48	Selective Electroless Deposition of Copper on Organic Thin Films with Improved Morphology. Langmuir, 2011, 27, 13022-13028.	3.5	23
49	Synthesis of Nickel Nanowires via Electroless Nanowire Deposition on Micropatterned Substrates. Langmuir, 2011, 27, 11292-11295.	3.5	17
50	Investigation of the Mechanism of Nickel Electroless Deposition on Functionalized Self-Assembled Monolayers. Langmuir, 2011, 27, 6932-6939.	3.5	21
51	Towards Molecular Electronics: Solution-Based Methods for Selective Deposition of Metals and Semiconductors. , 2011, , .		1
52	Selective formation of monodisperse CdSe nanoparticles on functionalized self-assembled monolayers using chemical bath deposition. Electrochimica Acta, 2010, 55, 8126-8134.	5.2	13
53	Matrix-Enhanced Secondary Ion Mass Spectrometry (ME SIMS) Using Room Temperature Ionic Liquid Matrices. Analytical Chemistry, 2010, 82, 4413-4419.	6.5	84
54	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

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55	Comparison of Chemical Lithography Using Alkanethiolate Self-Assembled Monolayers on GaAs (001) and Au. Langmuir, 2010, 26, 4523-4528.	3.5	14
56	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
57	Building Robust and Reliable Molecular Constructs: Patterning, Metallic Contacts, and Layer-by-Layer Assembly. Langmuir, 2010, 26, 13778-13785.	3.5	23
58	Formation of Multilayer Ultrathin Assemblies Using Chemical Lithography. Langmuir, 2010, 26, 8441-8449.	3.5	12
59	Secondary Ion Mass Spectrometry. , 2010, , 2504-2510.		1
60	Characterization of gold contacts in GaAs-based molecular devices: Relating structure to electrical properties. Chemical Physics Letters, 2009, 472, 220-223.	2.6	9
61	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
62	Benzaldehyde-Functionalized Polymer Vesicles. ACS Nano, 2009, 3, 673-681.	14.6	66
63	Building addressable libraries: a site-selective click-reaction strategy for rapidly assembling mass spectrometry cleavable linkers. Chemical Communications, 2009, , 5573.	4.1	28
64	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
65	An investigation of secondary ion yield enhancement using Bi <sub>n</sub> <sup>2+</sup> ( <i>n</i> =1, 2, 3) Tj ETQq1,10.784314 rgBT 17	2.8	17
66	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
67	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
68	Why Is SIMS Underused in Chemical and Biological Analysis? Challenges and Opportunities. Analytical Chemistry, 2008, 80, 8865-8870.	6.5	65
69	UV Photooxidation of a Homologous Series of <i>n</i> -Alkanethiolate Monolayers on GaAs(001): A Static SIMS Investigation. Journal of Physical Chemistry C, 2008, 112, 797-805.	3.1	15
70	Molecular Self-Assembly at Bare Semiconductor Surfaces: Investigation of the Chemical and Electronic Properties of the Alkanethiolate-GaAs(001) Interface. Journal of Physical Chemistry C, 2007, 111, 4226-4234.	3.1	80
71	Dynamics of Reactive Metal Adsorption on Organic Thin Films. Journal of Physical Chemistry C, 2007, 111, 8543-8556.	3.1	23
72	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

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73	Dynamics of Interaction of Magnesium Atoms on Methoxy-Terminated Self-Assembled Monolayers: An Example of a Reactive Metal with a Low Sticking Probability. <i>Journal of Physical Chemistry C</i> , 2007, 111, 765-772.	3.1	24
74	UV Photooxidation and Photopatterning of Alkanethiolate Self-Assembled Monolayers (SAMs) on GaAs (001). <i>Langmuir</i> , 2007, 23, 8876-8881.	3.5	26
75	Building Addressable Libraries: The Use of a Mass Spectrometry Cleavable Linker for Monitoring Reactions on a Microelectrode Array. <i>Journal of the American Chemical Society</i> , 2006, 128, 16020-16021.	13.7	21
76	Dependence of Patterned Binary Alkanethiolate Self-Assembled Monolayers on UV-Photopatterning Conditions and Evolution with Time, Terminal Group, and Methylene Chain Length. <i>Langmuir</i> , 2006, 22, 11420-11425.	3.5	33
77	Dynamics of the Interaction of Vapor-Deposited Copper with Alkanethiolate Monolayers: Bond Insertion, Complexation, and Penetration Pathways. <i>Journal of Physical Chemistry B</i> , 2006, 110, 12543-12554.	2.6	41
78	Toward Molecular Electronic Circuitry: Selective Deposition of Metals on Patterned Self-Assembled Monolayer Surfaces. <i>Journal of the American Chemical Society</i> , 2005, 127, 12160-12161.	13.7	41
79	The Dynamics of Noble Metal Atom Penetration through Methoxy-Terminated Alkanethiolate Monolayers. <i>Journal of the American Chemical Society</i> , 2004, 126, 3954-3963.	13.7	163
80	Solvation of zero-valent metals in organic thin films. <i>Chemical Physics Letters</i> , 2003, 369, 615-620.	2.6	23
81	Prospects for imaging with TOF-SIMS using gold liquid metal ion sources. <i>Applied Surface Science</i> , 2003, 203-204, 198-200.	6.1	38
82	Bond Insertion, Complexation, and Penetration Pathways of Vapor-Deposited Aluminum Atoms with HO- and CH <sub>3</sub> O-Terminated Organic Monolayers. <i>Journal of the American Chemical Society</i> , 2002, 124, 5528-5541.	13.7	195