

# Seán T Barry

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/246500/publications.pdf>

Version: 2024-02-01

92  
papers

2,001  
citations

236612

25  
h-index

276539

41  
g-index

126  
all docs

126  
docs citations

126  
times ranked

1765  
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis and Characterization of Copper(I) Amidinates as Precursors for Atomic Layer Deposition (ALD) of Copper Metal. <i>Inorganic Chemistry</i> , 2005, 44, 1728-1735.	1.9	151
2	Amidinates, guanidinates and iminopyrrolidinates: Understanding precursor thermolysis to design a better ligand. <i>Coordination Chemistry Reviews</i> , 2013, 257, 3192-3201.	9.5	100
3	Theoretical and Synthetic Investigations of Carbodiimide Insertions into Al~CH <sub>3</sub> and Al~N(CH <sub>3</sub> ) <sub>2</sub> Bonds. <i>Inorganic Chemistry</i> , 2005, 44, 1983-1991.	1.9	96
4	Atomic Layer Deposition of Gold Metal. <i>Chemistry of Materials</i> , 2016, 28, 44-46.	3.2	88
5	The Insertion of Carbodiimides into Al and Ga Amido Linkages. Guanidinates and Mixed Amido Guanidinates of Aluminum and Gallium. <i>Inorganic Chemistry</i> , 2005, 44, 2926-2933.	1.9	79
6	Synthesis and Thermal Chemistry of Copper (I) Guanidinates. <i>Inorganic Chemistry</i> , 2008, 47, 683-689.	1.9	72
7	Principles of precursor design for vapour deposition methods. <i>Polyhedron</i> , 2016, 108, 59-66.	1.0	66
8	Trends in Copper Precursor Development for CVD and ALD Applications. <i>ECS Journal of Solid State Science and Technology</i> , 2015, 4, N3188-N3197.	0.9	57
9	Absolute near-infrared refractometry with a calibrated tilted fiber Bragg grating. <i>Optics Letters</i> , 2015, 40, 1713.	1.7	56
10	Synthesis and Thermolysis of Aluminum Amidinates: A Ligand-Exchange Route for New Mixed-Ligand Systems. <i>Inorganic Chemistry</i> , 2006, 45, 2276-2281.	1.9	50
11	Group 11 Amidinates and Guanidinates: Potential Precursors for Vapour Deposition. <i>European Journal of Inorganic Chemistry</i> , 2011, 2011, 3240-3247.	1.0	47
12	Anomalous permittivity and plasmon resonances of copper nanoparticle conformal coatings on optical fibers. <i>Optical Materials Express</i> , 2011, 1, 128.	1.6	46
13	Deposition of Copper by Plasma-Enhanced Atomic Layer Deposition Using a Novel N-Heterocyclic Carbene Precursor. <i>Chemistry of Materials</i> , 2013, 25, 1132-1138.	3.2	46
14	Polarization-dependent properties of the cladding modes of a single mode fiber covered with gold nanoparticles. <i>Optics Express</i> , 2013, 21, 245.	1.7	46
15	Gas-Phase Thermolysis of a Guanidinate Precursor of Copper Studied by Matrix Isolation, Time-of-Flight Mass Spectrometry, and Computational Chemistry. <i>Inorganic Chemistry</i> , 2010, 49, 2844-2850.	1.9	41
16	The Chemistry of Inorganic Precursors during the Chemical Deposition of Films on Solid Surfaces. <i>Accounts of Chemical Research</i> , 2018, 51, 800-809.	7.6	41
17	Surfactant Directed Growth of Gold Metal Nanoplates by Chemical Vapor Deposition. <i>Chemistry of Materials</i> , 2015, 27, 6116-6124.	3.2	35
18	Recent Advances Using Guanidinate Ligands for Chemical Vapour Deposition (CVD) and Atomic Layer Deposition (ALD) Applications. <i>Australian Journal of Chemistry</i> , 2014, 67, 989.	0.5	32

#	ARTICLE	IF	CITATIONS
19	Atomic Layer Deposition of Aluminum Oxide Thin Films from a Heteroleptic, Amidinate-Containing Precursor. <i>Chemistry of Materials</i> , 2008, 20, 7287-7291.	3.2	31
20	Effective Permittivity of Ultrathin Chemical Vapor Deposited Gold Films on Optical Fibers at Infrared Wavelengths. <i>Journal of Physical Chemistry C</i> , 2014, 118, 670-678.	1.5	30
21	Preventing thermolysis: precursor design for volatile copper compounds. <i>Chemical Communications</i> , 2012, 48, 10440.	2.2	29
22	Theoretical and experimental investigations of ligand exchange in guanidinate ligand systems for group 13 metals. <i>Dalton Transactions</i> , 2007, , 3297.	1.6	26
23	Chemical vapour deposition of In <sub>2</sub> O <sub>3</sub> thin films from a tris-guanidinate indium precursor. <i>Dalton Transactions</i> , 2011, 40, 9425.	1.6	26
24	Thermal Chemistry of Cu(I)-Iminopyrrolidinate and Cu(I)-Guanidinate Atomic Layer Deposition (ALD) Precursors on Ni(110) Single-Crystal Surfaces. <i>Chemistry of Materials</i> , 2013, 25, 3630-3639.	3.2	26
25	Atmospheric pressure chemical vapor deposition of electrochromic tungsten oxide films. <i>Thin Solid Films</i> , 2001, 392, 231-235.	0.8	25
26	Anisotropic effective permittivity of an ultrathin gold coating on optical fiber in air, water and saline solutions. <i>Optics Express</i> , 2014, 22, 31665.	1.7	25
27	A Family of Heteroleptic Titanium Guanidates: Synthesis, Thermolysis, and Surface Reactivity. <i>Inorganic Chemistry</i> , 2010, 49, 1976-1982.	1.9	24
28	Thermally Robust Gold and Silver Iminopyrrolidates for Chemical Vapor Deposition of Metal Films. <i>Chemistry of Materials</i> , 2013, 25, 4566-4573.	3.2	24
29	Study of Monomeric Copper Complexes Supported by <i>N</i> -Heterocyclic and Acyclic Diamino Carbenes. <i>Organometallics</i> , 2017, 36, 2800-2810.	1.1	24
30	Atom efficient cyclotrimerization of dimethylcyanamide catalyzed by aluminium amide: a combined experimental and theoretical investigation. <i>Chemical Communications</i> , 2008, , 3645.	2.2	21
31	Designated Molecular Deconstruction: The Facile Transformation of Ga(N(SiMe <sub>3</sub> ) <sub>2</sub> )(OSiMe <sub>3</sub> ) <sub>2</sub> py (py = ) Tj ETQq1 1,0,784314,rgBT /O	3.2	20
32	Heteroleptic iminopyrrolidates of aluminium. <i>Dalton Transactions</i> , 2010, 39, 9046.	1.6	20
33	Copper Iminopyrrolidates: A Study of Thermal and Surface Chemistry. <i>Inorganic Chemistry</i> , 2013, 52, 910-917.	1.9	20
34	Passivation of Plasmonic Colors on Bulk Silver by Atomic Layer Deposition of Aluminum Oxide. <i>Langmuir</i> , 2018, 34, 4998-5010.	1.6	18
35	Designing Stability into Thermally Reactive Plumblylenes. <i>Inorganic Chemistry</i> , 2018, 57, 8218-8226.	1.9	18
36	Green CVD—Toward a sustainable philosophy for thin film deposition by chemical vapor deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021, 39, .	0.9	18

#	ARTICLE	IF	CITATIONS
37	Tris(dimethylamido)aluminum(III): An overlooked atomic layer deposition precursor. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2017, 35, .	0.9	17
38	Thermal atomic layer deposition of gold nanoparticles: controlled growth and size selection for photocatalysis. <i>Nanoscale</i> , 2020, 12, 9005-9013.	2.8	17
39	Atomic layer deposition of Cu with a carbene-stabilized Cu( <i>sc</i> ) silylamide. <i>Journal of Materials Chemistry C</i> , 2014, 2, 9205-9214.	2.7	16
40	The effect of ALD-grown Al <sub>2</sub> O <sub>3</sub> on the refractive index sensitivity of CVD gold-coated optical fiber sensors. <i>Nanotechnology</i> , 2015, 26, 434002.	1.3	16
41	Ligand-Assisted Volatilization and Thermal Stability of Bis(imido)dichloromolybdenum(VI) ([ <i>t</i> -BuNâ)MoCl <sub>2</sub> ) <sub>2</sub> and Its Adducts. <i>Organometallics</i> , 2020, 39, 916-927.	1.1	16
42	Atomic Layer Deposition of PbS Thin Films at Low Temperatures. <i>Chemistry of Materials</i> , 2020, 32, 8216-8228.	3.2	16
43	Cobalt Metal ALD: Understanding the Mechanism and Role of Zinc Alkyl Precursors as Reductants for Low-Resistivity Co Thin Films. <i>Chemistry of Materials</i> , 2021, 33, 5045-5057.	3.2	16
44	Preparation and characterization of mixed alkyl amido complexes of gallium. <i>Journal of Organometallic Chemistry</i> , 1996, 510, 103-108.	0.8	15
45	Thermally-Induced Transformations of Gallium and Indium Alkyl Phosphido Complexes:Â Dealkylsilylation Routes to MP (M = Ga, In). <i>Organometallics</i> , 1997, 16, 3588-3592.	1.1	15
46	Effect of the nature of the substrate on the surface chemistry of atomic layer deposition precursors. <i>Journal of Chemical Physics</i> , 2017, 146, 052806.	1.2	15
47	Thermal Decomposition of Copper Iminopyrrolidinate Atomic Layer Deposition (ALD) Precursors on Silicon Oxide Surfaces. <i>Journal of Physical Chemistry C</i> , 2016, 120, 14149-14156.	1.5	14
48	Surface chemistry of group 11 atomic layer deposition precursors on silica using solid-state nuclear magnetic resonance spectroscopy. <i>Journal of Chemical Physics</i> , 2017, 146, 052812.	1.2	14
49	Gallium Nitride Synthesis Using Lithium Metal as a Nitrogen Fixant. <i>Chemistry of Materials</i> , 1998, 10, 2571-2574.	3.2	13
50	Volatile Liquid Precursors for the Chemical Vapor Deposition (CVD) of Thin Films Containing Tungsten. <i>Materials Research Society Symposia Proceedings</i> , 2000, 612, 9121.	0.1	13
51	Thermal fragmentation of the guanidinato aluminum amide precursor [Me <sub>2</sub> NC(NiPr) <sub>2</sub> ]Al(NMe <sub>2</sub> ) <sub>2</sub> : An investigation of reactive species by matrix-isolation FTIR spectroscopy and time-of-flight mass spectrometry. <i>Polyhedron</i> , 2008, 27, 1832-1840.	1.0	13
52	Synthesis and solution decomposition kinetics of flash-vaporizable liquid Barium Beta-diketonates. <i>Advanced Materials for Optics and Electronics</i> , 2000, 10, 201-211.	0.6	12
53	Activation of the dimers and tetramers of metal amidinate atomic layer deposition precursors upon adsorption on silicon oxide surfaces. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2017, 35, .	0.9	12
54	Plasma-Enhanced Atomic Layer Deposition of Nanostructured Gold Near Room Temperature. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 37229-37238.	4.0	12

#	ARTICLE	IF	CITATIONS
55	In Situ Deposition Monitoring by a Tilted Fiber Bragg Grating Optical Probe: Probing Nucleation in Chemical Vapour Deposition of Gold. <i>Physics Procedia</i> , 2013, 46, 12-20.	1.2	11
56	Self-seeding gallium oxide nanowire growth by pulsed chemical vapor deposition. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 1514-1518.	0.8	11
57	Controlling the Thermal Stability and Volatility of Organogold(I) Compounds for Vapor Deposition with Complementary Ligand Design. <i>European Journal of Inorganic Chemistry</i> , 2019, 2019, 4927-4938.	1.0	11
58	Work function of doped zinc oxide films deposited by ALD. <i>Journal of Materials Research</i> , 2020, 35, 756-761.	1.2	11
59	A Rare Low-Spin Co IV Bis(Î²-silyldiamide) with High Thermal Stability: Steric Enforcement of a Doublet Configuration. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 14138-14142.	7.2	11
60	CVD on Optical Fibers: Tilted Fiber Bragg Gratings as Real-time Sensing Platforms. <i>Chemical Vapor Deposition</i> , 2015, 21, 4-20.	1.4	10
61	Synthesis, Characterization, and Thermal Study of Divalent Germanium, Tin, and Lead Triazenides as Potential Vapor Deposition Precursors. <i>Inorganic Chemistry</i> , 2021, 60, 12759-12765.	1.9	10
62	Laser-written colours on silver: optical effect of alumina coating. <i>Nanophotonics</i> , 2019, 8, 807-822.	2.9	9
63	Metal-assisted chemical etching using sputtered gold: a simple route to black silicon. <i>Science and Technology of Advanced Materials</i> , 2011, 12, 045001.	2.8	8
64	Quantitative Surface Coverage Calculations via Solid-State NMR for Thin Film Depositions: A Case Study for Silica and a Gallium Amidinate. <i>Journal of Physical Chemistry C</i> , 2014, 118, 1618-1627.	1.5	8
65	Rational Design of Metalorganic Complexes for the Deposition of Solid Films: Growth of Metallic Copper with Amidinate Precursors. <i>Chemistry of Materials</i> , 2019, 31, 1681-1687.	3.2	8
66	Thermal Stability and Decomposition Pathways in Volatile Molybdenum(VI) Bis-imides. <i>Inorganic Chemistry</i> , 2022, 61, 4980-4994.	1.9	8
67	Crystal Structure of Dimerized 1,3-Diisopropyl Carbodiimide. <i>Journal of Chemical Crystallography</i> , 2011, 41, 375-378.	0.5	5
68	Methylamines as Nitrogen Precursors in Chemical Vapor Deposition of Gallium Nitride. <i>Journal of Physical Chemistry C</i> , 2019, 123, 6701-6710.	1.5	5
69	Ein seltenes Low-Spin-Co IV -Bis(Î²-silyldiamid) mit hoher thermischer Stabilität: Sterische Erzwungung einer Dublett Konfiguration. <i>Angewandte Chemie</i> , 2020, 132, 14242-14246.	1.6	4
70	Resolving Impurities in Atomic Layer Deposited Aluminum Nitride through Low Cost, High Efficiency Precursor Design. <i>Inorganic Chemistry</i> , 2021, 60, 11025-11031.	1.9	4
71	Thermal study of an indium trisguanidinate as a possible indium nitride precursor. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018, 36, .	0.9	3
72	Chemists, It Is Time To Embrace Preprints. <i>Chemistry of Materials</i> , 2018, 30, 2859-2859.	3.2	3

#	ARTICLE	IF	CITATIONS
73	Lutetium coating of nanoparticles by atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 022414.	0.9	3
74	Chemical vapor deposition of anisotropic ultrathin gold films on optical fibers: real-time sensing by tilted fiber Bragg gratings and use of a dielectric pre-coating. , 2014, , .		2
75	New Zr-containing precursors for the atomic layer deposition of ZrO <sub>2</sub> . Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, 013001.	0.9	2
76	Using a Vapor-Phase Surfactant to Control Gold Metal Plate Growth. Advanced Materials Interfaces, 2017, 4, 1600864.	1.9	2
77	Reaction mechanism of the Me <sub>3</sub> AuPMe <sub>3</sub> â€”H <sub>2</sub> plasma-enhanced ALD process. Physical Chemistry Chemical Physics, 2020, 22, 11903-11914.	1.3	2
78	(tBuN)SiMe <sub>2</sub> NMe <sub>2</sub> â€”A new N,Nâ€”2-monoanionic ligand for atomic layer deposition precursors. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, 032409.	0.9	2
79	Co(II) Amide, Pyrrolate, and Aminopyridinate Complexes: Assessment of their Manifold Structural Chemistry and Thermal Properties**. European Journal of Inorganic Chemistry, 2021, 2021, 5119-5136.	1.0	2
80	Modified 3D-printed architectures: Effects of coating by alumina on acrylonitrile butadiene styrene. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, 022407.	0.9	2
81	Monomeric Chelated Amides of Aluminum and Gallium: Volatile, Miscible Liquid Precursors for CVD. Materials Research Society Symposia Proceedings, 1999, 606, 83.	0.1	1
82	Gonioscolorimetric study of aluminum oxide films deposited by atomic layer deposition. Thin Solid Films, 2012, 520, 2943-2948.	0.8	1
83	Anomalous refractive index of ultrathin gold nanoparticle film coated on tilted fiber Bragg grating. , 2014, , .		1
84	Novel copper compounds for vapor deposition: Characterization and thermolysis. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, 01A116.	0.9	1
85	In Honor of Professor Markku LeskelÃ. Chemistry of Materials, 2018, 30, 4469-4474.	3.2	1
86	Volatile and Thermally Stable Polymeric Tin Trifluoroacetates. Inorganic Chemistry, 2020, 59, 996-1005.	1.9	1
87	Thermal ranges and figures of merit for gold-containing precursors for atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, 022401.	0.9	1
88	Liquid Compounds for CVD of Alkaline Earth Metals. Materials Research Society Symposia Proceedings, 1999, 574, 23.	0.1	0
89	Plasmonic properties of copper nanoparticles deposited on tilted fiber bragg gratings. , 2011, , .		0
90	Plasmonics on Fibers Coated with Metal Nanoparticles. , 2012, , .		0

#	ARTICLE	IF	CITATIONS
91	Optical Excitation of Metal Nanoparticles by Optical Fiber Cladding Mode Wavelength Combs. , 2013, , .		0
92	Monitoring of the Insulator-to-Metal Transition of Ultrathin Gold Coatings on Optical Fibers. , 2015, , .		0