

Sen T Barry

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

84
papers

1,665
citations

22
h-index

37
g-index

126
ext. papers

1,831
ext. citations

5.3
avg, IF

4.95
L-index

#	Paper	IF	Citations
84	Synthesis and characterization of copper(I) amidinates as precursors for atomic layer deposition (ALD) of copper metal. <i>Inorganic Chemistry</i> , 2005 , 44, 1728-35	5.1	142
83	Theoretical and synthetic investigations of carbodiimide insertions into Al-CH ₃ and Al-N(CH ₃) ₂ bonds. <i>Inorganic Chemistry</i> , 2005 , 44, 1983-91	5.1	93
82	Amidinates, guanidates and iminopyrrolidates: Understanding precursor thermolysis to design a better ligand. <i>Coordination Chemistry Reviews</i> , 2013 , 257, 3192-3201	23.2	89
81	The insertion of carbodiimides into Al and Ga amido linkages. Guanidates and mixed amido guanidates of aluminum and gallium. <i>Inorganic Chemistry</i> , 2005 , 44, 2926-33	5.1	74
80	Synthesis and thermal chemistry of copper (I) guanidates. <i>Inorganic Chemistry</i> , 2008 , 47, 683-9	5.1	69
79	Atomic Layer Deposition of Gold Metal. <i>Chemistry of Materials</i> , 2016 , 28, 44-46	9.6	68
78	Trends in Copper Precursor Development for CVD and ALD Applications. <i>ECS Journal of Solid State Science and Technology</i> , 2015 , 4, N3188-N3197	2	52
77	Synthesis and thermolysis of aluminum amidinates: a ligand-exchange route for new mixed-ligand systems. <i>Inorganic Chemistry</i> , 2006 , 45, 2276-81	5.1	50
76	Principles of precursor design for vapour deposition methods. <i>Polyhedron</i> , 2016 , 108, 59-66	2.7	48
75	Group 11 Amidinates and Guanidates: Potential Precursors for Vapour Deposition. <i>European Journal of Inorganic Chemistry</i> , 2011 , 2011, 3240-3247	2.3	44
74	Absolute near-infrared refractometry with a calibrated tilted fiber Bragg grating. <i>Optics Letters</i> , 2015 , 40, 1713-6	3	43
73	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	9.6	39
72	Gas-phase thermolysis of a guanidate precursor of copper studied by matrix isolation, time-of-flight mass spectrometry, and computational chemistry. <i>Inorganic Chemistry</i> , 2010 , 49, 2844-50	5.1	39
71	Anomalous permittivity and plasmon resonances of copper nanoparticle conformal coatings on optical fibers. <i>Optical Materials Express</i> , 2011 , 1, 128	2.6	38
70	Surfactant Directed Growth of Gold Metal Nanoplates by Chemical Vapor Deposition. <i>Chemistry of Materials</i> , 2015 , 27, 6116-6124	9.6	33
69	Polarization-dependent properties of the cladding modes of a single mode fiber covered with gold nanoparticles. <i>Optics Express</i> , 2013 , 21, 245-55	3.3	33
68	The Chemistry of Inorganic Precursors during the Chemical Deposition of Films on Solid Surfaces. <i>Accounts of Chemical Research</i> , 2018 , 51, 800-809	24.3	32

67	Preventing thermolysis: precursor design for volatile copper compounds. <i>Chemical Communications</i> , 2012 , 48, 10440-2	5.8	26
66	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	9.6	26
65	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	1.2	25
64	Atomic Layer Deposition of Aluminum Oxide Thin Films from a Heteroleptic, Amidinate-Containing Precursor. <i>Chemistry of Materials</i> , 2008 , 20, 7287-7291	9.6	25
63	Atmospheric pressure chemical vapor deposition of electrochromic tungsten oxide films. <i>Thin Solid Films</i> , 2001 , 392, 231-235	2.2	25
62	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	3.8	22
61	A family of heteroleptic titanium guanidates: synthesis, thermolysis, and surface reactivity. <i>Inorganic Chemistry</i> , 2010 , 49, 1976-82	5.1	22
60	Theoretical and experimental investigations of ligand exchange in guanidinate ligand systems for group 13 metals. <i>Dalton Transactions</i> , 2007 , 3297-304	4.3	22
59	Thermally Robust Gold and Silver Iminopyrrolidates for Chemical Vapor Deposition of Metal Films. <i>Chemistry of Materials</i> , 2013 , 25, 4566-4573	9.6	21
58	Chemical vapour deposition of In ₂ O ₃ thin films from a tris-guanidinate indium precursor. <i>Dalton Transactions</i> , 2011 , 40, 9425-30	4.3	21
57	Copper iminopyrrolidates: a study of thermal and surface chemistry. <i>Inorganic Chemistry</i> , 2013 , 52, 910-7	5.1	20
56	Heteroleptic iminopyrrolidates of aluminium. <i>Dalton Transactions</i> , 2010 , 39, 9046-54	4.3	20
55	Atom efficient cyclotrimerization of dimethylcyanamide catalyzed by aluminium amide: a combined experimental and theoretical investigation. <i>Chemical Communications</i> , 2008 , 3645-7	5.8	20
54	Anisotropic effective permittivity of an ultrathin gold coating on optical fiber in air, water and saline solutions. <i>Optics Express</i> , 2014 , 22, 31665-76	3.3	19
53	Designated Molecular Deconstruction: The Facile Transformation of Ga(N(SiMe ₃) ₂)(OSiMe ₃) ₂ py (py = pyridine) to GaN. <i>Chemistry of Materials</i> , 1994 , 6, 2220-2221	9.6	19
52	Study of Monomeric Copper Complexes Supported by N-Heterocyclic and Acyclic Diamino Carbenes. <i>Organometallics</i> , 2017 , 36, 2800-2810	3.8	17
51	Passivation of Plasmonic Colors on Bulk Silver by Atomic Layer Deposition of Aluminum Oxide. <i>Langmuir</i> , 2018 , 34, 4998-5010	4	16
50	Atomic layer deposition of Cu with a carbene-stabilized Cu(I) silylamide. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 9205-9214	7.1	16

49	Preparation and characterization of mixed alkyl amido complexes of gallium. <i>Journal of Organometallic Chemistry</i> , 1996 , 510, 103-108	2.3	15
48	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	3.9	14
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	3.8	14
46	Thermally-Induced Transformations of Gallium and Indium Alkyl Phosphido Complexes: Dealkylsilylation Routes to MP (M = Ga, In). <i>Organometallics</i> , 1997 , 16, 3588-3592	3.8	14
45	Volatile Liquid Precursors for the Chemical Vapor Deposition (CVD) of Thin Films Containing Tungsten. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 612, 9121		13
44	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, 01B124	2.9	12
43	Thermal fragmentation of the guanidinato aluminum amide precursor [Me ₂ NC(NiPr) ₂]Al(NMe ₂) ₂ : An investigation of reactive species by matrix-isolation FTIR spectroscopy and time-of-flight mass spectrometry. <i>Polyhedron</i> , 2008 , 27, 1832-1840	2.7	12
42	Synthesis and solution decomposition kinetics of flash-vaporizable liquid Barium Beta-diketonates. <i>Advanced Materials for Optics and Electronics</i> , 2000 , 10, 201-211		12
41	Gallium Nitride Synthesis Using Lithium Metal as a Nitrogen Fixant. <i>Chemistry of Materials</i> , 1998 , 10, 2570-2574	1.2	12
40	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	3.9	11
39	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, 01B128	2.9	11
38	The effect of ALD-grown Al ₂ O ₃ on the refractive index sensitivity of CVD gold-coated optical fiber sensors. <i>Nanotechnology</i> , 2015 , 26, 434002	3.4	11
37	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	1.6	11
36	Designing Stability into Thermally Reactive Plumbylenes. <i>Inorganic Chemistry</i> , 2018 , 57, 8218-8226	5.1	11
35	Plasma-Enhanced Atomic Layer Deposition of Nanostructured Gold Near Room Temperature. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 37229-37238	9.5	10
34	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		9
33	CVD on Optical Fibers: Tilted Fiber Bragg Gratings as Real-time Sensing Platforms. <i>Chemical Vapor Deposition</i> , 2015 , 21, 4-20		8
32	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	2.3	8

31	Thermal atomic layer deposition of gold nanoparticles: controlled growth and size selection for photocatalysis. <i>Nanoscale</i> , 2020 , 12, 9005-9013	7.7	7
30	Ligand-Assisted Volatilization and Thermal Stability of Bis(imido)dichloromolybdenum(VI) ([t-BuN ⁺) ₂ MoCl ₂] ₂) and Its Adducts. <i>Organometallics</i> , 2020 , 39, 916-927	3.8	7
29	Atomic Layer Deposition of PbS Thin Films at Low Temperatures. <i>Chemistry of Materials</i> , 2020 , 32, 8216-8228	9.2	7
28	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	9.6	7
27	Laser-written colours on silver: optical effect of alumina coating. <i>Nanophotonics</i> , 2019 , 8, 807-822	6.3	6
26	A Rare Low-Spin Co Bis(Esilyldiamide) with High Thermal Stability: Steric Enforcement of a Doublet Configuration. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 14138-14142	16.4	6
25	Metal-assisted chemical etching using sputtered gold: a simple route to black silicon. <i>Science and Technology of Advanced Materials</i> , 2011 , 12, 045001	7.1	6
24	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	3.8	5
23	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, 051001	2.9	5
22	Crystal Structure of Dimerized 1,3-Diisopropyl Carbodiimide. <i>Journal of Chemical Crystallography</i> , 2011 , 41, 375-378	0.5	3
21	Work function of doped zinc oxide films deposited by ALD. <i>Journal of Materials Research</i> , 2020 , 35, 756-764	7.4	3
20	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	9.6	3
19	Methylamines as Nitrogen Precursors in Chemical Vapor Deposition of Gallium Nitride. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 6701-6710	3.8	3
18	Using a Vapor-Phase Surfactant to Control Gold Metal Plate Growth. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1600864	4.6	2
17	Lutetium coating of nanoparticles by atomic layer deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020 , 38, 022414	2.9	2
16	New Zr-containing precursors for the atomic layer deposition of ZrO ₂ . <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2015 , 33, 013001	2.9	1
15	Reaction mechanism of the MeAuPMe-H plasma-enhanced ALD process. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 11903-11914	3.6	1
14	Volatile and Thermally Stable Polymeric Tin Trifluoroacetates. <i>Inorganic Chemistry</i> , 2020 , 59, 996-1005	5.1	1

13	Goniocolorimetric study of aluminum oxide films deposited by atomic layer deposition. <i>Thin Solid Films</i> , 2012 , 520, 2943-2948	2.2	1
12	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 ,		1
11	Monomeric Chelated Amides of Aluminum and Gallium: Volatile, Miscible Liquid Precursors for CVD. <i>Materials Research Society Symposia Proceedings</i> , 1999 , 606, 83		1
10	Novel copper compounds for vapor deposition: Characterization and thermolysis. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2016 , 34, 01A116	2.9	1
9	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, 01A101	2.9	1
8	Resolving Impurities in Atomic Layer Deposited Aluminum Nitride through Low Cost, High Efficiency Precursor Design. <i>Inorganic Chemistry</i> , 2021 , 60, 11025-11031	5.1	1
7	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	5.1	1
6	Modified 3D-printed architectures: Effects of coating by alumina on acrylonitrile butadiene styrene. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2022 , 40, 022407	2.9	1
5	Co(II) Amide, Pyrrolate, and Aminopyridinate Complexes: Assessment of their Manifold Structural Chemistry and Thermal Properties**. <i>European Journal of Inorganic Chemistry</i> , 2021 , 2021, 5119	2.3	0
4	Ein seltenes Low-Spin-CoIV-Bis(Ethylidiamid) mit hoher thermischer Stabilität: Sterische Erzwungung einer Dublett Konfiguration. <i>Angewandte Chemie</i> , 2020 , 132, 14242-14246	3.6	0
3	(tBuN)SiMe ₂ NMe ₂ : A new N,N'-bis(monoanionic) ligand for atomic layer deposition precursors. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 032409	2.9	0
2	Liquid Compounds for CVD of Alkaline Earth Metals. <i>Materials Research Society Symposia Proceedings</i> , 1999 , 574, 23		
1	Thermal ranges and figures of merit for gold-containing precursors for atomic layer deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 022401	2.9	