SeÃ¡n T Barry

List of Publications by Year
in descending order

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92	2,001	236612	276539
papers	citations	25 h-index	41 g-index

126	126	126	1765
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Thermal Stability and Decomposition Pathways in Volatile Molybdenum(VI) Bis-imides. Inorganic Chemistry, 2022, 61, 4980-4994.	1.9	8
2	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
3	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
4	(tBuN)SiMe2NMe2â€"A new N,Nâ€²-Îº2-monoanionic ligand for atomic layer deposition precursors. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, 032409.	0.9	2
5	Cobalt Metal ALD: Understanding the Mechanism and Role of Zinc Alkyl Precursors as Reductants for Low-Resistivity Co Thin Films. Chemistry of Materials, 2021, 33, 5045-5057.	3.2	16
6	Resolving Impurities in Atomic Layer Deposited Aluminum Nitride through Low Cost, High Efficiency Precursor Design. Inorganic Chemistry, 2021, 60, 11025-11031.	1.9	4
7	Synthesis, Characterization, and Thermal Study of Divalent Germanium, Tin, and Lead Triazenides as Potential Vapor Deposition Precursors. Inorganic Chemistry, 2021, 60, 12759-12765.	1.9	10
8	Green CVDâ€"Toward a sustainable philosophy for thin film deposition by chemical vapor deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	18
9	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
10	Ligand-Assisted Volatilization and Thermal Stability of Bis(imido)dichloromolybdenum(VI) ([(t-BuNâ•)₂MoCl₂]₂) and Its Adducts. Organometallics, 2020, 39, 916-927.	1.1	16
11	Work function of doped zinc oxide films deposited by ALD. Journal of Materials Research, 2020, 35, 756-761.	1.2	11
12	Ein seltenes Lowâ€Spinâ€Co IV â€Bis(Î²â€silyldiamid) mit hoher thermischer StabilitÃt: Sterische Erzwingung einer Dublettkonfiguration. Angewandte Chemie, 2020, 132, 14242-14246.	1.6	4
13	Atomic Layer Deposition of PbS Thin Films at Low Temperatures. Chemistry of Materials, 2020, 32, 8216-8228.	3.2	16
14	A Rare Lowâ€Spin Co IV Bis(Î²â€silyldiamide) with High Thermal Stability: Steric Enforcement of a Doublet Configuration. Angewandte Chemie - International Edition, 2020, 59, 14138-14142.	7.2	11
15	Reaction mechanism of the Me₃AuPMe₃â€“H₂ plasma-enhanced ALD process. Physical Chemistry Chemical Physics, 2020, 22, 11903-11914.	1.3	2
16	Thermal atomic layer deposition of gold nanoparticles: controlled growth and size selection for photocatalysis. Nanoscale, 2020, 12, 9005-9013.	2.8	17
17	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
18	Volatile and Thermally Stable Polymeric Tin Trifluoroacetates. Inorganic Chemistry, 2020, 59, 996-1005.	1.9	1

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19	Plasma-Enhanced Atomic Layer Deposition of Nanostructured Gold Near Room Temperature. ACS Applied Materials & Interfaces, 2019, 11, 37229-37238.	4.0	12
20	Laser-written colours on silver: optical effect of alumina coating. Nanophotonics, 2019, 8, 807-822.	2.9	9
21	Rational Design of Metalorganic Complexes for the Deposition of Solid Films: Growth of Metallic Copper with Amidinate Precursors. Chemistry of Materials, 2019, 31, 1681-1687.	3.2	8
22	Methylamines as Nitrogen Precursors in Chemical Vapor Deposition of Gallium Nitride. Journal of Physical Chemistry C, 2019, 123, 6701-6710.	1.5	5
23	Controlling the Thermal Stability and Volatility of Organogold(I) Compounds for Vapor Deposition with Complementary Ligand Design. European Journal of Inorganic Chemistry, 2019, 2019, 4927-4938.	1.0	11
24	The Chemistry of Inorganic Precursors during the Chemical Deposition of Films on Solid Surfaces. Accounts of Chemical Research, 2018, 51, 800-809.	7.6	41
25	Passivation of Plasmonic Colors on Bulk Silver by Atomic Layer Deposition of Aluminum Oxide. Langmuir, 2018, 34, 4998-5010.	1.6	18
26	Thermal study of an indium trisguanidinate as a possible indium nitride precursor. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, .	0.9	3
27	Designing Stability into Thermally Reactive Plumbylenes. Inorganic Chemistry, 2018, 57, 8218-8226.	1.9	18
28	In Honor of Professor Markku LeskelÃ. Chemistry of Materials, 2018, 30, 4469-4474.	3.2	1
29	Chemists, It Is Time To Embrace Preprints. Chemistry of Materials, 2018, 30, 2859-2859.	3.2	3
30	Surface chemistry of group 11 atomic layer deposition precursors on silica using solid-state nuclear magnetic resonance spectroscopy. Journal of Chemical Physics, 2017, 146, 052812.	1.2	14
31	Using a Vaporâ€Phase Surfactant to Control Gold Metal Plate Growth. Advanced Materials Interfaces, 2017, 4, 1600864.	1.9	2
32	Tris(dimethylamido)aluminum(III): An overlooked atomic layer deposition precursor. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	0.9	17
33	Activation of the dimers and tetramers of metal amidinate atomic layer deposition precursors upon adsorption on silicon oxide surfaces. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	0.9	12
34	Effect of the nature of the substrate on the surface chemistry of atomic layer deposition precursors. Journal of Chemical Physics, 2017, 146, 052806.	1.2	15
35	Study of Monomeric Copper Complexes Supported by N-Heterocyclic and Acyclic Diamino Carbenes. Organometallics, 2017, 36, 2800-2810.	1.1	24
36	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

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37	Thermal Decomposition of Copper Iminopyrrolidinate Atomic Layer Deposition (ALD) Precursors on Silicon Oxide Surfaces. Journal of Physical Chemistry C, 2016, 120, 14149-14156.	1.5	14
38	Atomic Layer Deposition of Gold Metal. Chemistry of Materials, 2016, 28, 44-46.	3.2	88
39	Principles of precursor design for vapour deposition methods. Polyhedron, 2016, 108, 59-66.	1.0	66
40	Self-seeding gallium oxide nanowire growth by pulsed chemical vapor deposition. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 1514-1518.	0.8	11
41	Trends in Copper Precursor Development for CVD and ALD Applications. ECS Journal of Solid State Science and Technology, 2015, 4, N3188-N3197.	0.9	57
42	New Zr-containing precursors for the atomic layer deposition of ZrO2. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, 013001.	0.9	2
43	Surfactant Directed Growth of Gold Metal Nanoplates by Chemical Vapor Deposition. Chemistry of Materials, 2015, 27, 6116-6124.	3.2	35
44	Monitoring of the Insulator-to-Metal Transition of Ultrathin Gold Coatings on Optical Fibers. , 2015, , .		0
45	Absolute near-infrared refractometry with a calibrated tilted fiber Bragg grating. Optics Letters, 2015, 40, 1713.	1.7	56
46	The effect of ALD-grown Al₂O₃on the refractive index sensitivity of CVD gold-coated optical fiber sensors. Nanotechnology, 2015, 26, 434002.	1.3	16
47	CVD on Optical Fibers: Tilted Fiber Bragg Gratings as Realâ€time Sensing Platforms. Chemical Vapor Deposition, 2015, 21, 4-20.	1.4	10
48	Anisotropic effective permittivity of an ultrathin gold coating on optical fiber in air, water and saline solutions. Optics Express, 2014, 22, 31665.	1.7	25
49	Anomalous refractive index of ultrathin gold nanoparticle film coated on tilted fiber Bragg grating. , 2014, , .		1
50	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
51	Quantitative Surface Coverage Calculations via Solid-State NMR for Thin Film Depositions: A Case Study for Silica and a Gallium Amidinate. Journal of Physical Chemistry C, 2014, 118, 1618-1627.	1.5	8
52	Atomic layer deposition of Cu with a carbene-stabilized Cu(<scp>i</scp>) silylamide. Journal of Materials Chemistry C, 2014, 2, 9205-9214.	2.7	16
53	Recent Advances Using Guanidinate Ligands for Chemical Vapour Deposition (CVD) and Atomic Layer Deposition (ALD) Applications. Australian Journal of Chemistry, 2014, 67, 989.	0.5	32
54	Effective Permittivity of Ultrathin Chemical Vapor Deposited Gold Films on Optical Fibers at Infrared Wavelengths. Journal of Physical Chemistry C, 2014, 118, 670-678.	1.5	30

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55	In Situ Deposition Monitoring by a Tilted Fiber Bragg Grating Optical Probe: Probing Nucleation in Chemical Vapour Deposition of Gold. Physics Procedia, 2013, 46, 12-20.	1.2	11
56	Copper Iminopyrrolidinates: A Study of Thermal and Surface Chemistry. Inorganic Chemistry, 2013, 52, 910-917.	1.9	20
57	Amidinates, guanidinates and iminopyrrolidinates: Understanding precursor thermolysis to design a better ligand. Coordination Chemistry Reviews, 2013, 257, 3192-3201.	9.5	100
58	Deposition of Copper by Plasma-Enhanced Atomic Layer Deposition Using a Novel N-Heterocyclic Carbene Precursor. Chemistry of Materials, 2013, 25, 1132-1138.	3.2	46
59	Thermally Robust Gold and Silver Iminopyrrolidinates for Chemical Vapor Deposition of Metal Films. Chemistry of Materials, 2013, 25, 4566-4573.	3.2	24
60	Thermal Chemistry of Cu(I)-Iminopyrrolidinate and Cu(I)-Guanidinate Atomic Layer Deposition (ALD) Precursors on Ni(110) Single-Crystal Surfaces. Chemistry of Materials, 2013, 25, 3630-3639.	3.2	26
61	Optical Excitation of Metal Nanoparticles by Optical Fiber Cladding Mode Wavelength Combs. , 2013, , .		0
62	Polarization-dependent properties of the cladding modes of a single mode fiber covered with gold nanoparticles. Optics Express, 2013, 21, 245.	1.7	46
63	Plasmonics on Fibers Coated with Metal Nanoparticles. , 2012, , .		0
64	Preventing thermolysis: precursor design for volatile copper compounds. Chemical Communications, 2012, 48, 10440.	2.2	29
65	Goniocolorimetric study of aluminum oxide films deposited by atomic layer deposition. Thin Solid Films, 2012, 520, 2943-2948.	0.8	1
66	Chemical vapour deposition of In2O3 thin films from a tris-guanidinate indium precursor. Dalton Transactions, 2011, 40, 9425.	1.6	26
67	Plasmonic properties of copper nanoparticles deposited on tilted fiber bragg gratings. , 2011, , .		0
68	Anomalous permittivity and plasmon resonances of copper nanoparticle conformal coatings on optical fibers. Optical Materials Express, 2011, 1, 128.	1.6	46
69	Crystal Structure of Dimerized 1,3-Diisopropyl Carbodiimide. Journal of Chemical Crystallography, 2011, 41, 375-378.	0.5	5
70	Group 11 Amidinates and Guanidinates: Potential Precursors for Vapour Deposition. European Journal of Inorganic Chemistry, 2011, 2011, 3240-3247.	1.0	47
71	Metal-assisted chemical etching using sputtered gold: a simple route to black silicon. Science and Technology of Advanced Materials, 2011, 12, 045001.	2.8	8
72	Gas-Phase Thermolysis of a Guanidinate Precursor of Copper Studied by Matrix Isolation, Time-of-Flight Mass Spectrometry, and Computational Chemistry. Inorganic Chemistry, 2010, 49, 2844-2850.	1.9	41

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73	A Family of Heteroleptic Titanium Guanidinates: Synthesis, Thermolysis, and Surface Reactivity. Inorganic Chemistry, 2010, 49, 1976-1982.	1.9	24
74	Heteroleptic iminopyrrolidinates of aluminium. Dalton Transactions, 2010, 39, 9046.	1.6	20
75	Thermal fragmentation of the guanidinato aluminum amide precursor [Me2NC(NiPr)2]Al(NMe2)2: An investigation of reactive species by matrix-isolation FTIR spectroscopy and time-of-flight mass spectrometry. Polyhedron, 2008, 27, 1832-1840.	1.0	13
76	Atom efficient cyclotrimerization of dimethylcyanamide catalyzed by aluminium amide: a combined experimental and theoretical investigation. Chemical Communications, 2008, , 3645.	2.2	21
77	Atomic Layer Deposition of Aluminum Oxide Thin Films from a Heteroleptic, Amidinate-Containing Precursor. Chemistry of Materials, 2008, 20, 7287-7291.	3.2	31
78	Synthesis and Thermal Chemistry of Copper (I) Guanidinates. Inorganic Chemistry, 2008, 47, 683-689.	1.9	72
79	Theoretical and experimental investigations of ligand exchange in guanidinate ligand systems for group 13 metals. Dalton Transactions, 2007, , 3297.	1.6	26
80	Synthesis and Thermolysis of Aluminum Amidinates:Â A Ligand-Exchange Route for New Mixed-Ligand Systems. Inorganic Chemistry, 2006, 45, 2276-2281.	1.9	50
81	The Insertion of Carbodiimides into Al and Ga Amido Linkages. Guanidinates and Mixed Amido Guanidinates of Aluminum and Gallium. Inorganic Chemistry, 2005, 44, 2926-2933.	1.9	79
82	Theoretical and Synthetic Investigations of Carbodiimide Insertions into Alâ˜CH3and Alâ˜N(CH3)2Bonds. Inorganic Chemistry, 2005, 44, 1983-1991.	1.9	96
83	Synthesis and Characterization of Copper(I) Amidinates as Precursors for Atomic Layer Deposition (ALD) of Copper Metal. Inorganic Chemistry, 2005, 44, 1728-1735.	1.9	151
84	Atmospheric pressure chemical vapor deposition of electrochromic tungsten oxide films. Thin Solid Films, 2001, 392, 231-235.	0.8	25
85	Volatile Liquid Precursors for the Chemical Vapor Deposition (CVD) of Thin Films Containing Tungsten. Materials Research Society Symposia Proceedings, 2000, 612, 9121.	0.1	13
86	Synthesis and solution decomposition kinetics of flash-vaporizable liquid Barium Beta-diketonates. Advanced Materials for Optics and Electronics, 2000, 10, 201-211.	0.6	12
87	Liquid Compounds for CVD of Alkaline Earth Metals. Materials Research Society Symposia Proceedings, 1999, 574, 23.	0.1	0
88	Monomeric Chelated Amides of Aluminum and Gallium: Volatile, Miscible Liquid Precursors for CVD. Materials Research Society Symposia Proceedings, 1999, 606, 83.	0.1	1
89	Gallium Nitride Synthesis Using Lithium Metal as a Nitrogen Fixant. Chemistry of Materials, 1998, 10, 2571-2574.	3.2	13
90	Thermally-Induced Transformations of Gallium and Indium Alkyl Phosphido Complexes:Â Dealkylsilylation Routes to MP (M = Ga, In). Organometallics, 1997, 16, 3588-3592.	1.1	15

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91	Preparation and characterization of mixed alkyl amido complexes of gallium. Journal of Organometallic Chemistry, 1996, 510, 103-108.	0.8	15
92	Designated Molecular Deconstruction: The Facile Transformation of Ga(N(SiMe3)2)(OSiMe3)2py (py =) Tj ETQq0 0 0 rgBT /Overlock 10	3.2	20