

Steven Stevenson

List of Publications by Year in descending order

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5,178
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87888

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107
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docs citations

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times ranked

1594
citing authors

#	ARTICLE	IF	CITATIONS
1	Cylindrical C ₉₆ Fullertubes: A Highly Active Metal-Free O ₂ Reduction Electrocatalyst. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	17
2	Exploring the Threshold between Fullerenes and Nanotubes: Characterizing Isomerically Pure, Empty-Caged, and Tubular Fullerenes C ₅₀ and C ₅₄ -C ₉₀ and C ₅₄ -C ₁₀₀ . <i>Journal of the American Chemical Society</i> , 2022, 144, 10825-10829.	13.7	10
3	Vibrational anatomy of C ₉₀ , C ₉₆ , and C ₁₀₀ fullertubes: probing Frankenstein's skeletal structures of fullerene head endcaps and nanotube belt midsection. <i>Nanoscale</i> , 2022, 14, 10823-10834.	5.6	2
4	Chemical Isolation of Isomerically Purified Sc ₃ @C ₆₈ . <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 832-832.	0.0	0
5	Detection and Isolation of Isomerically Pure C ₁₂₀ Fullertubes. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 834-834.	0.0	0
6	(Invited) Toward the Isolation of Giant C ₁₂₀ -C ₂₀₀ Fullertubes. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 820-820.	0.0	0
7	Selective Solubility of Fullertubes with Non-Aromatic Solvents. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 835-835.	0.0	0
8	Semiconducting and Metallic [5,5] Fullertube Nanowires: Characterization of Pristine D _{5h} (1)-C ₉₀ and D _{5d} (1)-C ₁₀₀ . <i>Journal of the American Chemical Society</i> , 2021, 143, 4593-4599.	13.7	17
9	(Invited) Fullertubes: Isolation of Isomerically Purified and Pristine Samples. <i>ECS Meeting Abstracts</i> , 2021, MA2021-01, 632-632.	0.0	0
10	(Nanocarbons Division Best Poster Award - 1st Place) Chemical Purification and Isolation of New Fullertube Molecules. <i>ECS Meeting Abstracts</i> , 2021, MA2021-01, 614-614.	0.0	0
11	Fullertubes: Cylindrical Carbon with Half-Fullerene End-Caps and Tubular Graphene Belts, Their Chemical Enrichment, Crystallography of Pristine C ₉₀ -D _{5h} (1) and C ₁₀₀ -D _{5d} (1) Fullertubes, and Isolation of C ₁₀₈ , C ₁₂₀ , C ₁₃₂ , and C ₁₅₆ Cages of Unknown Structures. <i>Journal of the American Chemical Society</i> , 2020, 142, 15614-15623.	13.7	38
12	Regioselective Synthesis and Characterization of Tris- and Tetra-Prato Adducts of M ₃ N@C ₈₀ (M = Y, Tj ETQq0 0 0 rgBT /Overlock 10 Tf	13.7	14
13	Selective Chemical Reaction of Empty Cage Fullertubes with Variable-Chain Aminoalcohols. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 764-764.	0.0	0
14	Large Carbon Clusters with Entrapped Gadolinium Atoms. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 770-770.	0.0	0
15	Chemical Purification of Fullertubes and Isolation of C ₁₀₀ -C ₂₀₀ Structures: Tubes or Balls?. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 744-744.	0.0	0
16	Recovery and Isolation of Higher Fullerenes and Metallofullerenes Via Selective Chemical Release from Waste Materials. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 765-765.	0.0	0
17	Encapsulated Yttrium Atoms in Carbon Cages: Spheres or Tubes?. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 768-768.	0.0	0
18	Purification of Small-Cage Endohedral Metallofullerenes Using Wet Chemistry. <i>ECS Meeting Abstracts</i> , 2020, MA2020-02, 1134-1134.	0.0	0

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19	Chemical Isolation of Nanotubular Fullerenes (FullerTubes). ECS Meeting Abstracts, 2020, MA2020-02, 1082-1082.	0.0	0
20	Isolation and Crystallographic Characterization of Two, Nonisolated Pentagon Endohedral Fullerenes: Ho ₃ N@C ₂ (22010)@C ₇₈ and Tb ₃ N@C ₂ (22010)@C ₇₈ . Chemistry - A European Journal, 2019, 25, 12545-12551.	3.3	13
21	Structures of Gd ₃ N@C ₈₀ Prato Bis-Adducts: Crystal Structure, Thermal Isomerization, and Computational Study. Journal of the American Chemical Society, 2019, 141, 10988-10993.	13.7	16
22	Leveraging Reactivity Differences to Isolate the Less-Common Holmium Metallofullerenes. ECS Meeting Abstracts, 2019, , .	0.0	0
23	(Invited) Nanotubular Fullerenes: Part Buckyball, Part Nanotube. ECS Meeting Abstracts, 2019, , .	0.0	0
24	Chemical Purification of Lutetium Clusters Entrapped in Less-Common Fullerene Cages. ECS Meeting Abstracts, 2019, , .	0.0	0
25	(Invited) Chemical Purification of Nanotubular Fullerenes: Separating Buckyballs from Buckytubes. ECS Meeting Abstracts, 2019, , .	0.0	0
26	(Invited) Pristine Carbon Nanowires: Are They Five-Fold Symmetry C ₉₀ , C ₁₀₀ and C ₁₂₀ Fullerenes or [5,5] End-Capped Carbon Nanotubes?. ECS Meeting Abstracts, 2019, , .	0.0	0
27	Purification of Nanotubular Fullerenes: Manipulating Reactivity Differences of Carbon Tubes and Spheres. ECS Meeting Abstracts, 2019, , .	0.0	0
28	Identifying a Needle in a Haystack: Isolation and Structural Characterization of Er ₂ C ₉₄ as the Carbide Er ₂ C ₂ @D ₃ (85)@C ₉₂ . Chemistry - A European Journal, 2018, 24, 13479-13484.	3.3	11
29	Toward the Chemical Isolation of Larger-Size Empty-Cage Fullerenes. ECS Meeting Abstracts, 2018, , .	0.0	0
30	Aminopropanol@xylene to chemically purify Gd ₃ N@C ₈₈ metallofullerene. Inorganica Chimica Acta, 2017, 468, 177-182.	2.4	1
31	Confining the spin between two metal atoms within the carbon cage: redox-active metal-metal bonds in dimetallofullerenes and their stable cation radicals. Nanoscale, 2017, 9, 7977-7990.	5.6	39
32	Endohedral fullerenes: Synthesis, isolation, mono- and bis-functionalization. Inorganica Chimica Acta, 2017, 468, 16-27.	2.4	37
33	Non-Chromatographic Separation of Endohedral Metallofullerenes by Utilizing Their Redox Properties. Nanostructure Science and Technology, 2017, , 63-79.	0.1	0
34	Isolation and Crystallographic Characterization of Gd ₃ N@D ₂ (35)-C ₈₈ through Non-Chromatographic Methods. Inorganic Chemistry, 2016, 55, 62-67.	4.0	18
35	Isolation of CeLu ₂ N@I _h -C ₈₀ through a Non-Chromatographic, Two-Step Chemical Process and Crystallographic Characterization of the Pyramidalized CeLu ₂ N within the Icosahedral Cage. Chemistry - A European Journal, 2015, 21, 10362-10368.	3.3	21
36	Bis-1,3-dipolar Cycloadditions on Endohedral Fullerenes M ₃ N@I _h -C ₈₀ (M = Sc, Lu): Remarkable Endohedral-Cluster Regiochemical Control. Journal of the American Chemical Society, 2015, 137, 11775-11782.	13.7	34

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37	Effect of Water and Solvent Selection on the SAFA Purification Times for Metallic Nitride Fullerenes. Fullerenes Nanotubes and Carbon Nanostructures, 2014, 22, 182-189.	2.1	10
38	Metal Oxide Clusterfullerenes. , 2014, , 179-210.		3
39	Fractionation of rare-earth metallofullerenes via reversible uptake and release from reactive silica. Dalton Transactions, 2014, 43, 7435-7441.	3.3	11
40	Tuning the Selectivity of Gd ₃ N Cluster Endohedral Metallofullerene Reactions with Lewis Acids. Inorganic Chemistry, 2014, 53, 12939-12946.	4.0	16
41	CuCl ₂ for the Isolation of a Broad Array of Endohedral Fullerenes Containing Metallic, Metallic Carbide, Metallic Nitride, and Metallic Oxide Clusters, and Separation of Their Structural Isomers. Inorganic Chemistry, 2013, 52, 9606-9612.	4.0	18
42	Trimetallic Nitride Template Endohedral Metallofullerenes: Discovery, Structural Characterization, Reactivity, and Applications. Accounts of Chemical Research, 2013, 46, 1548-1557.	15.6	155
43	Buckyball maracas: exploring the inside and outside properties of endohedral fullerenes. Journal of Physical Organic Chemistry, 2013, 26, 194-205.	1.9	55
44	Selective Synthesis, Isolation, and Crystallographic Characterization of LaSc ₂ N@I _h -C ₈₀ . Inorganic Chemistry, 2012, 51, 13096-13102.	4.0	45
45	Redox-Active Scandium Oxide Cluster inside a Fullerene Cage: Spectroscopic, Voltammetric, Electron Spin Resonance Spectroelectrochemical, and Extended Density Functional Theory Study of Sc ₄ O ₂ @C ₈₀ and Its Ion Radicals. Journal of the American Chemical Society, 2012, 134, 19607-19618.	13.7	67
46	(Invited) In Situ ESR Spectroelectrochemical Study of Sc ₄ MO ₂ @C ₈₀ : Endohedral Redox System. ECS Meeting Abstracts, 2012, , .	0.0	0
47	The Shape of the Sc ₂ ($\frac{1}{4}$ -S) Unit Trapped in C ₈₂ : Crystallographic, Computational, and Electrochemical Studies of the Isomers, Sc ₂ ($\frac{1}{4}$ -S)@C ₈₂ and Sc ₂ ($\frac{1}{4}$ -S)@C ₈₂ (6)-C ₈₂ and Sc ₂ ($\frac{1}{4}$ -S)@C ₈₂ (8)-C ₈₂ . Journal of the American Chemical Society, 2011, 133, 6752-6760.	13.7	121
48	Poly(perfluoroalkylation) of Metallic Nitride Fullerenes Reveals Addition-Pattern Guidelines: Synthesis and Characterization of a Family of Sc ₃ N@C ₈₀ (CF ₃) ₂ and Their Radical Anions. Journal of the American Chemical Society, 2011, 133, 2672-2690.	13.7	73
49	Metallic nitride azafullerenes: A novel class of fullerenes with interesting electronic properties. Chemical Physics Letters, 2011, 508, 121-124.	2.6	7
50	Metallic Oxide Clusters in Fullerene Cages. World Scientific Series on Carbon Nanoscience, 2011, , 185-205.	0.1	4
51	Redox-Tuning Endohedral Fullerene Spin States: From the Dication to the Trianion Radical of Sc ₃ N@C ₈₀ (CF ₃) ₂ in Five Reversible Single-Electron Steps. Chemistry - A European Journal, 2010, 16, 4721-4724.	3.3	42
52	Sc ₂ ($\frac{1}{4}$ -O) Trapped in a Fullerene Cage: The Isolation and Structural Characterization of Sc ₂ ($\frac{1}{4}$ -O)@C ₈₂ (6)-C ₈₂ and the Relevance of the Thermal and Entropic Effects in Fullerene Isomer Selection. Journal of the American Chemical Society, 2010, 132, 12098-12105.	13.7	119
53	A seven atom cluster in a carbon cage, the crystallographically determined structure of Sc ₄ ($\frac{1}{4}$ -O) ₃ @I _h -C ₈₀ . Chemical Communications, 2010, 46, 279-281.	4.1	123
54	Electronic Structures of Scandium Oxide Endohedral Metallofullerenes, Sc ₄ ($\frac{1}{4}$ -O) ₃ @I _h -C ₈₀ ($\langle i \rangle = 2, 3$). Inorganic Chemistry, 2009, 48, 5957-5961.	4.0	57

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55	Preferential Encapsulation and Stability of La ₃ N Cluster in 80 Atom Cages: Experimental Synthesis and Computational Investigation of La ₃ N@C ₇₉ N. <i>Journal of the American Chemical Society</i> , 2009, 131, 17780-17782.	13.7	37
56	Selective Complexation and Reactivity of Metallic Nitride and Oxometallic Fullerenes with Lewis Acids and Use as an Effective Purification Method. <i>Inorganic Chemistry</i> , 2009, 48, 11685-11690.	4.0	57
57	Sc ₃ N@(C ₈₀ -I _h h(7)) ₁₄ and Sc ₃ N@(C ₈₀ -I _h h(7)) ₁₆ . Endohedral Metallofullerene Derivatives with Exohedral Addends on Four and Eight Triple-Hexagon Junctions. Does the Sc ₃ N Cluster Control the Addition Pattern or Vice Versa?. <i>Journal of the American Chemical Society</i> , 2009, 131, 17630-17637.	13.7	59
58	Evidence for Singlet-Oxygen Generation and Biocidal Activity in Photoresponsive Metallic Nitride Fullerene~Polymer Adhesive Films. <i>ACS Applied Materials & Interfaces</i> , 2009, 1, 882-887.	8.0	49
59	Singlet oxygen generation and adhesive loss in stimuli-responsive, fullerene~polymer blends, containing polystyrene-block-polybutadiene-block-polystyrene and polystyrene-block-polyisoprene-block-polystyrene rubber-based adhesives. <i>Journal of Applied Polymer Science</i> , 2008, 109, 2895-2904.	2.6	16
60	A reinvestigation of the electrochemical behavior of Sc ₃ N@C ₈₀ . <i>Journal of Electroanalytical Chemistry</i> , 2008, 614, 171-174.	3.8	24
61	Dispersion of Gold Nanoparticles in UV-Cured, Thiol~Ene Films by Precomplexation of Gold~Thiol. <i>Chemistry of Materials</i> , 2008, 20, 5240-5245.	6.7	45
62	A Distorted Tetrahedral Metal Oxide Cluster inside an Icosahedral Carbon Cage. Synthesis, Isolation, and Structural Characterization of Sc ₄ (¹ / ₄ Sc ₃ -O) ₂ @I _h -C ₈₀ . <i>Journal of the American Chemical Society</i> , 2008, 130, 11844-11845.	13.7	219
63	Conversion of Nanomaterial Waste Soot to Recycled Sc ₂ O ₃ Feedstock for the Synthesis of Metallic Nitride Fullerenes. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 2096-2099.	3.7	8
64	Internal and External Factors in the Structural Organization in Cocrystals of the Mixed-Metal Endohedrals (GdSc ₂ N@I _h -C ₈₀), Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 Td (Gd ₂ Sc ₂ N@I _h -C ₈₀). <i>Inorganic Chemistry</i> , 2008, 47, 1420-1427.	4.0	89
65	Reducing hazardous material and environmental impact through recycling of scandium nanomaterial waste. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2008, 43, 357-360.	1.7	14
66	Rapid Removal of D ₅ h Isomer Using the ~Stir and Filter Approach~and Isolation of Large Quantities of Isomerically Pure Sc ₃ N@C ₈₀ Metallic Nitride Fullerenes. <i>Journal of the American Chemical Society</i> , 2007, 129, 6072-6073.	13.7	59
67	Chemically Adjusting Plasma Temperature, Energy, and Reactivity (CAPTEAR) Method Using NO _x and Combustion for Selective Synthesis of Sc ₃ N@C ₈₀ Metallic Nitride Fullerenes. <i>Journal of the American Chemical Society</i> , 2007, 129, 16257-16262.	13.7	51
68	Effect of copper metal on the yield of Sc ₃ N@C ₈₀ metallofullerenes. <i>Chemical Communications</i> , 2007, , 4263.	4.1	40
69	Radical Trifluoromethylation of Sc ₃ N@C ₈₀ . <i>Journal of the American Chemical Society</i> , 2007, 129, 11676-11677.	13.7	85
70	Nano- and bulk-tack adhesive properties of stimuli-responsive, fullerene~polymer blends, containing polystyrene-block-polybutadiene-block-polystyrene and polystyrene-block-polyisoprene-block-polystyrene rubber-based adhesives. <i>Polymer</i> , 2007, 48, 6773-6781.	3.8	44
71	Nonchromatographic ~Stir and Filter Approach~(SAFA) for Isolating Sc ₃ N@C ₈₀ Metallofullerenes. <i>Journal of the American Chemical Society</i> , 2006, 128, 8829-8835.	13.7	96
72	An Alternative Approach for Separating Metallic Nitride Fullerenes (MNFs) from Nanomaterial Mixtures. <i>ECS Transactions</i> , 2006, 2, 95-102.	0.5	4

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73	Synthesis and Purification of a Metallic Nitride Fullerene BisAdduct: Exploring the Reactivity of Gd ₃ N@C ₈₀ . Journal of the American Chemical Society, 2005, 127, 12776-12777.	13.7	65
74	Pyramidalization of Gd ₃ N inside a C ₈₀ cage. The synthesis and structure of Gd ₃ N@C ₈₀ . Chemical Communications, 2004, , 2814.	4.1	126
75	Title is missing!. Angewandte Chemie, 2003, 115, 928-931.	2.0	34
76	Sc ₃ N@C ₆₈ : Folded Pentalene Coordination in an Endohedral Fullerene that Does Not Obey the Isolated Pentagon Rule. Angewandte Chemie - International Edition, 2003, 42, 900-903.	13.8	173
77	Crystallographic Characterization of the Structure of the Endohedral Fullerene {Er ₂ @C ₈₂ Isomer I} with CsCage Symmetry and Multiple Sites for Erbium along a Band of Ten Contiguous Hexagons. Journal of the American Chemical Society, 2002, 124, 4172-4173.	13.7	108
78	Electron affinity of some trimetallic nitride and conventional metallofullerenes. International Journal of Mass Spectrometry, 2002, 213, 183-189.	1.5	32
79	Isolation and Structural Characterization of the Endohedral Fullerene Sc ₃ N@C ₇₈ . Angewandte Chemie - International Edition, 2001, 40, 1223-1225.	13.8	232
80	Fluorescence spectroscopy and emission lifetimes of Er ³⁺ in Er Sc ₃ N@C ₈₀ (x=1-3). Chemical Physics Letters, 2001, 343, 229-234.	2.6	69
81	Isolation and Structural Characterization of the Endohedral Fullerene Sc ₃ N@C(78) This work was supported by the US National Science Foundation (Grants CHE 9610507 and CHE 0070291 to A.L.B.), LUNA Innovations (H.C.D.), and the Gulbenkian Foundation (postdoctoral fellowship to A.d.B.-D.). Angewandte Chemie - International Edition, 2001, 40, 1223-1225.	13.8	8
82	Making connections between metallofullerenes and fullerenes: electrochemical investigations. Carbon, 2000, 38, 1663-1670.	10.3	51
83	A stable non-classical metallofullerene family. Nature, 2000, 408, 427-428.	27.8	379
84	The encapsulation of trimetallic nitride clusters in fullerene cages. AIP Conference Proceedings, 2000, , .	0.4	3
85	Isolation and Crystallographic Characterization of ErSc ₂ N@C ₈₀ : an Endohedral Fullerene Which Crystallizes with Remarkable Internal Order. Journal of the American Chemical Society, 2000, 122, 12220-12226.	13.7	184
86	Small-bandgap endohedral metallofullerenes in high yield and purity. Nature, 1999, 401, 55-57.	27.8	912
87	Enhanced nonlinear optical response of an endohedral metallofullerene through metal-to-cage charge transfer. Applied Physics Letters, 1998, 72, 2788-2790.	3.3	38
88	¹³ C Dynamic Nuclear Polarization: an Alternative Detector for Recycled-Flow NMR Experiments. Analytical Chemistry, 1998, 70, 2623-2628.	6.5	19
89	La ₂ @C ₇₂ : Metal-Mediated Stabilization of a Carbon Cage. Journal of Physical Chemistry A, 1998, 102, 2833-2837.	2.5	53
90	Measurement of Pair Interactions and 1.5 μm Emission from Er ³⁺ Ions in a C ₈₂ Fullerene Cage. Physical Review Letters, 1997, 79, 1397-1400.	7.8	48

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91	The Voltammetry of Sc ₃ @C ₈₂ . Journal of the American Chemical Society, 1997, 119, 437-438.	13.7	29
92	Far infrared transmittance of Sc ₂ @C ₈₄ and Er ₂ @C ₈₂ . Chemical Physics Letters, 1997, 264, 359-365.	2.6	16
93	NOVEL STRUCTURES FROM ARC-VAPORIZED CARBON AND METALS: SINGLE-LAYER CARBON NANOTUBES AND METALLOFULLERENES. Surface Review and Letters, 1996, 03, 765-769.	1.1	5
94	Orientational Dynamics of the Sc ₃ Trimer in C ₈₂ : An EPR Study. Physical Review Letters, 1994, 73, 3415-3418.	7.8	42
95	Preparation and structure of crystals of the metallofullerene Sc ₂ @C ₈₄ . Nature, 1994, 370, 196-199.	27.8	118
96	Automated HPLC Separation of Endohedral Metallofullerene Sc@C _{2n} and Y@C _{2n} Fractions. Analytical Chemistry, 1994, 66, 2675-2679.	6.5	86
97	¹³ C Dynamic Nuclear Polarization: A Detector for Continuous-Flow, Online Chromatography. Analytical Chemistry, 1994, 66, 2993-2999.	6.5	29
98	Isolation and Monitoring of the Endohedral Metallofullerenes Y@C ₈₂ and Sc ₃ @C ₈₂ : Online Chromatographic Separation with EPR Detection. Analytical Chemistry, 1994, 66, 2680-2685.	6.5	47
99	Endohedral Metallofullerenes: Isolation and Characterization. Materials Research Society Symposia Proceedings, 1994, 359, 123.	0.1	6
100	Cylindrical C ₉₆ Fullertubes: A Highly Active Metal-Free O ₂ Reduction Electrocatalyst. Angewandte Chemie, 0, , .	2.0	3