

Jeffery T Davis

List of Publications by Year in descending order

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88
papers

8,648
citations

53751

45
h-index

43868

91
g-index

91
all docs

91
docs citations

91
times ranked

6141
citing authors

#	ARTICLE	IF	CITATIONS
1	G-Quartets 40 Years Later: From 5â€²-GMP to Molecular Biology and Supramolecular Chemistry. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 668-698.	7.2	1,486
2	Horner-wadsworth-emmons reaction: Use of lithium chloride and an amine for base-sensitive compounds. <i>Tetrahedron Letters</i> , 1984, 25, 2183-2186.	0.7	871
3	Supramolecular architectures generated by self-assembly of guanosine derivatives. <i>Chemical Society Reviews</i> , 2007, 36, 296-313.	18.7	619
4	Recent advances in the transmembrane transport of anions. <i>Chemical Society Reviews</i> , 2010, 39, 3843.	18.7	326
5	Anion transport and supramolecular medicinal chemistry. <i>Chemical Society Reviews</i> , 2017, 46, 2497-2519.	18.7	268
6	Supramolecular gels made from nucleobase, nucleoside and nucleotide analogs. <i>Chemical Society Reviews</i> , 2016, 45, 3188-3206.	18.7	231
7	Toward Artificial Ion Channels:â€ A Lipophilic G-Quadruplex. <i>Journal of the American Chemical Society</i> , 2000, 122, 4060-4067.	6.6	230
8	Ion Channel Formation from a Calix[4]arene Amide That Binds HCl. <i>Journal of the American Chemical Society</i> , 2002, 124, 2267-2278.	6.6	204
9	A Unimolecular G-Quadruplex that Functions as a Synthetic Transmembrane Na ⁺ Transporter. <i>Journal of the American Chemical Society</i> , 2006, 128, 38-39.	6.6	199
10	Using small molecules to facilitate exchange of bicarbonate and chloride anions across liposomal membranes. <i>Nature Chemistry</i> , 2009, 1, 138-144.	6.6	185
11	A G ₄ -K ⁺ Hydrogel Stabilized by an Anion. <i>Journal of the American Chemical Society</i> , 2014, 136, 12596-12599.	6.6	163
12	A Lead-Filled G-Quadruplex:â€ Insight into the G-Quartet's Selectivity for Pb ²⁺ over K ⁺ . <i>Organic Letters</i> , 2000, 2, 3277-3280.	2.4	159
13	G ₄ -Quartet-M ⁺ Borate Hydrogels. <i>Journal of the American Chemical Society</i> , 2015, 137, 5819-5827.	6.6	140
14	Advances in anion transport and supramolecular medicinal chemistry. <i>Chemical Society Reviews</i> , 2020, 49, 6056-6086.	18.7	134
15	Conformational Control of Transmembrane Cl-Transport. <i>Journal of the American Chemical Society</i> , 2007, 129, 1886-1887.	6.6	131
16	Tripodal transmembrane transporters for bicarbonate. <i>Chemical Communications</i> , 2010, 46, 6252.	2.2	127
17	Water-Mediated Association Provides an Ion Pair Receptor. <i>Journal of the American Chemical Society</i> , 2003, 125, 15140-15150.	6.6	115
18	Large and Stable Transmembrane Pores from Guanosine~Bile Acid Conjugates. <i>Journal of the American Chemical Society</i> , 2008, 130, 2938-2939.	6.6	111

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19	A Molecular Chaperone for G4-Quartet Hydrogels. <i>Journal of the American Chemical Society</i> , 2016, 138, 134-139.	6.6	105
20	Using Diffusion NMR To Characterize Guanosine Self-Association: Insights into Structure and Mechanism. <i>Chemistry - A European Journal</i> , 2005, 11, 164-173.	1.7	98
21	Cation-Templated Self-Assembly of a Lipophilic Deoxyguanosine: A Solution Structure of a K ⁺ ·dG8Octamer. <i>Journal of Organic Chemistry</i> , 1999, 64, 5116-5123.	1.7	94
22	Structurally simple lipid bilayer transport agents for chloride and bicarbonate. <i>Chemical Science</i> , 2011, 2, 256-260.	3.7	91
23	The Self-Assembly of a Lipophilic Guanosine Nucleoside into Polymeric Columnar Aggregates: The Nucleoside Structure Contains Sufficient Information To Drive the Process towards a Strikingly Regular Polymer. <i>Chemistry - A European Journal</i> , 2001, 7, 388-395.	1.7	82
24	Homochiral G-Quadruplexes with Ba ²⁺ but Not with K ⁺ : The Cation Programs Enantiomeric Self-Recognition. <i>Journal of the American Chemical Society</i> , 2001, 123, 6738-6739.	6.6	80
25	Chloride Transport Across Lipid Bilayers and Transmembrane Potential Induction by an Oligophenoxyacetamide. <i>Journal of the American Chemical Society</i> , 2003, 125, 2840-2841.	6.6	78
26	Regulating Supramolecular Function in Membranes: Calixarenes that Enable or Inhibit Transmembrane Cl ⁻ Transport. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 3334-3338.	7.2	77
27	Catechols as Membrane Anion Transporters. <i>Journal of the American Chemical Society</i> , 2009, 131, 2458-2459.	6.6	72
28	Direct Detection of Potassium Cations Bound to G-Quadruplex Structures by Solid-State ³⁹ K NMR at 19.6 T. <i>Journal of the American Chemical Society</i> , 2003, 125, 7182-7183.	6.6	71
29	Lipophilic G-Quadruplexes Are Self-Assembled Ion Pair Receptors, and the Bound Anion Modulates the Kinetic Stability of These Complexes. <i>Journal of the American Chemical Society</i> , 2003, 125, 10830-10841.	6.6	71
30	Sequence-Selective Metal Ion Binding to DNA Oligonucleotides. <i>Acta Chemica Scandinavica</i> , 1993, 47, 649-657.	0.7	70
31	Toward artificial ion channels: self-assembled nanotubes from calix[4]arene-guanosine conjugates. <i>Chemical Communications</i> , 2000, , 2369-2370.	2.2	69
32	Ion-Pair Recognition by Nucleoside Self-Assembly: Guanosine Hexadecamers Bind Cations and Anions. <i>Angewandte Chemie - International Edition</i> , 2001, 40, 2827-2831.	7.2	69
33	Self-Assembled Ionophores from Isoguanosine. <i>Journal of Organic Chemistry</i> , 1995, 60, 4167-4176.	1.7	68
34	The Sodium Ions Inside a Lipophilic G-Quadruplex Channel as Probed by Solid-State ²³ Na NMR. <i>Journal of the American Chemical Society</i> , 2002, 124, 742-743.	6.6	67
35	Stereochemical control in the addition of isothiocyanatoacetate esters to boron trifluoride activated 3-thiazolines. A novel synthesis of d-biotin. <i>Journal of the American Chemical Society</i> , 1983, 105, 5946-5948.	6.6	66
36	Binding Cesium Ions with Nucleosides: Templated Self-Assembly of Isoguanosine Pentamers. <i>Angewandte Chemie - International Edition</i> , 2000, 39, 1283-1285.	7.2	65

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37	A G ₄ -K ⁺ hydrogel that self-destructs. <i>Chemical Communications</i> , 2016, 52, 5037-5040.	2.2	60
38	Self-Assembled Ionophores. An Isoguanosine-K ⁺ Octamer. <i>Journal of the American Chemical Society</i> , 1997, 119, 2769-2776.	6.6	59
39	Membrane-active calixarenes: toward $\hat{\epsilon}$ -gating TM transmembrane anion transport. <i>Tetrahedron</i> , 2007, 63, 10743-10750.	1.0	57
40	Supramolecular hydrogels for environmental remediation: G ₄ -quartet gels that selectively absorb anionic dyes from water. <i>Chemical Communications</i> , 2017, 53, 6235-6238.	2.2	57
41	Cation-directed self-assembly of lipophilic nucleosides: the cation's central role in the structure and dynamics of a hydrogen-bonded assembly. <i>Tetrahedron</i> , 2002, 58, 661-671.	1.0	56
42	Self-Assembly of Metallo-Nucleoside Hydrogels for Injectable Materials That Promote Wound Closure. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 19743-19750.	4.0	55
43	A Self-Assembled Ionophore with Remarkable Cs ⁺ Selectivity. <i>Journal of the American Chemical Society</i> , 1997, 119, 5271-5272.	6.6	47
44	G-Quartet hydrogels for effective cell growth applications. <i>Chemical Communications</i> , 2017, 53, 12668-12671.	2.2	47
45	Cation Exchange in Lipophilic G-Quadruplexes: $\hat{\epsilon}$ Not All Ion Binding Sites Are Equal. <i>Journal of the American Chemical Society</i> , 2006, 128, 15269-15277.	6.6	46
46	Influence of B-ring modifications on proton affinity, transmembrane anion transport and anti-cancer properties of synthetic prodigiosenes. <i>Organic and Biomolecular Chemistry</i> , 2014, 12, 7515-7522.	1.5	41
47	Interplay of Noncovalent Interactions in Ribbon-like Guanosine Self-Assembly: An NMR Crystallography Study. <i>Crystal Growth and Design</i> , 2015, 15, 5945-5954.	1.4	40
48	Selective ²²⁶ Ra ²⁺ Ionophores Provided by Self-Assembly of Guanosine and Isoguanosine Derivatives. <i>Journal of the American Chemical Society</i> , 2004, 126, 16575-16581.	6.6	38
49	Synthetic prodigiosenes and the influence of C-ring substitution on DNA cleavage, transmembrane chloride transport and basicity. <i>Organic and Biomolecular Chemistry</i> , 2013, 11, 3834.	1.5	38
50	Stabilizing Guanosine-Sterol Ion Channels with a Carbamate to Urea Modification in the Linker. <i>Organic Letters</i> , 2009, 11, 1599-1602.	2.4	36
51	Natural and Synthetic Receptors for Nitrate Anion. <i>Supramolecular Chemistry</i> , 2008, 20, 169-190.	1.5	32
52	Monoacylglycerols as transmembrane Cl ⁻ anion transporters. <i>Chemical Communications</i> , 2012, 48, 4432.	2.2	32
53	Preparation of 4-Oxo-L-norvaline via Diazomethane Homologation of $\hat{\epsilon}$ -Aspartyl Semialdehyde. <i>Journal of Organic Chemistry</i> , 1997, 62, 8243-8246.	1.7	31
54	A transmembrane anion transporter selective for nitrate over chloride. <i>Chemical Communications</i> , 2006, , 3246.	2.2	31

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55	Coexistence of Distinct Supramolecular Assemblies in Solution and in the Solid State. Chemistry - A European Journal, 2017, 23, 2315-2322.	1.7	28
56	Self-Assembled Ionophores from Isoguanosine: Diffusion NMR Spectroscopy Clarifies Cation's and Anion's Influence on Supramolecular Structure. Chemistry - A European Journal, 2007, 13, 1969-1977.	1.7	27
57	Synthesis of functionalized aliphatic aldehydes via a copper-catalyzed Grignard coupling reaction. Journal of Organic Chemistry, 1983, 48, 1767-1769.	1.7	25
58	Anion transport as easy as pi. Nature Chemistry, 2010, 2, 516-517.	6.6	24
59	Self-assembled ionophores as phase transfer catalysts. Tetrahedron Letters, 1999, 40, 3539-3542.	0.7	23
60	Guest and Subunit Exchange in Self-Assembled Ionophores. Organic Letters, 2000, 2, 1665-1668.	2.4	23
61	Facilitated Chloride Transport Across Phosphatidylcholine Bilayers by an Acyclic Calixarene Derivative: Structure-Function Relationships. Supramolecular Chemistry, 2006, 18, 257-264.	1.5	22
62	Drawing with Iron on a Gel Containing a Supramolecular Siderophore. Angewandte Chemie - International Edition, 2019, 58, 18434-18437.	7.2	22
63	Mild conditions for the preparation of high-mannose oligosaccharide oxazolines: entry point for Î²-glycoside and neoglycoprotein syntheses. Tetrahedron Letters, 1991, 32, 4447-4450.	0.7	20
64	Synthesis and Evaluation of Tripeptides Containing Asparagine Analogues as Potential Substrates or Inhibitors of Oligosaccharyltransferase. Journal of Organic Chemistry, 1998, 63, 4767-4778.	1.7	20
65	High-Resolution ³⁹ K NMR Spectroscopy of Bio-organic Solids. Journal of the American Chemical Society, 2011, 133, 19570-19573.	6.6	20
66	Controlling molecularity and stability of hydrogen bonded G-quadruplexes by modulating the structure's periphery. Chemical Communications, 2016, 52, 11112-11115.	2.2	20
67	Kinetic Control in Noncovalent Synthesis: Regioselective Ligand Exchange into a Hydrogen Bonded Assembly. Organic Letters, 2004, 6, 4265-4268.	2.4	19
68	The CÎ±-glycosyl analog of an N-linked glycoamino acid. Tetrahedron Letters, 1998, 39, 9135-9138.	0.7	18
69	G ₄ -quartet hydrogels from 5-ε ² -hydrazino-guanosine for the non-covalent and covalent remediation of contaminants from water. Faraday Discussions, 2018, 209, 97-112.	1.6	17
70	Title is missing!. Journal of Inclusion Phenomena and Macrocyclic Chemistry, 2001, 40, 51-57.	1.6	16
71	N2, C8-disubstituted guanosine derivatives can form G-quartets. Tetrahedron Letters, 2006, 47, 6381-6384.	0.7	16
72	Stereoselective Preparation of Deuterium-Labeled Sugars: (6R)-(6-2H1)-N-Acetylglucosamine Derivatives. Journal of Organic Chemistry, 1998, 63, 5555-5561.	1.7	15

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73	Hydrolysis of the GlcNAc oxazoline: deamidation and acyl rearrangement. Carbohydrate Research, 1995, 277, 125-134.	1.1	14
74	A self-assembled peroxidase from 5 ^α -GMP and heme. Chemical Communications, 2018, 54, 1587-1590.	2.2	13
75	Playing supramolecular dominoes with light: building and breaking a photoreversible G-quadruplex made from guanosine, boric acid and an azobenzene. Organic and Biomolecular Chemistry, 2019, 17, 2759-2769.	1.5	13
76	Templating and Catalyzing [2+2] Photocycloaddition in Solution Using a Dynamic G ⁺ Quadruplex. Angewandte Chemie - International Edition, 2018, 57, 17146-17150.	7.2	12
77	Sequence-Specific Peptide ⁺ Carbohydrate Interactions in an Asparagine-Linked Glycopeptide. Journal of Organic Chemistry, 1996, 61, 4198-4199.	1.7	10
78	Selective Removal of ²²⁶ Ra ²⁺ from Gas-Field-Produced Waters. Environmental Science & Technology, 2005, 39, 5455-5459.	4.6	10
79	Controlling the transmembrane transport of nucleosides. Supramolecular Chemistry, 2014, 26, 286-295.	1.5	9
80	Magic-angle spinning NMR spectroscopy provides insight into the impact of small molecule uptake by G-quartet hydrogels. Materials Advances, 2020, 1, 2236-2247.	2.6	8
81	A G ₄ ·K ⁺ hydrogel made from 5 ^α -hydrazinoguanosine for remediation of ¹ H ⁺ , ¹ H ²⁺ -unsaturated carbonyls. Chemical Communications, 2018, 54, 11300-11303.	2.2	7
82	Coexistence of Distinct Supramolecular Assemblies in Solution and in the Solid State. Chemistry - A European Journal, 2017, 23, 2235-2235.	1.7	6
83	Oxidation of 8-thioguanosine gives redox-responsive hydrogels and reveals intermediates in a desulfurization pathway. Chemical Communications, 2020, 56, 6981-6984.	2.2	6
84	The Peptide Can Influence Sugar Conformation in Small Asn Glycopeptides. Journal of Carbohydrate Chemistry, 2005, 24, 261-273.	0.4	5
85	Tipping a cell's ionic balance. Nature Chemistry, 2014, 6, 852-853.	6.6	5
86	Templating and Catalyzing [2+2] Photocycloaddition in Solution Using a Dynamic G ⁺ Quadruplex. Angewandte Chemie, 2018, 130, 17392-17396.	1.6	4
87	Drawing with Iron on a Gel Containing a Supramolecular Siderophore. Angewandte Chemie, 2019, 131, 18605-18608.	1.6	3
88	The natural product prodigiosin binds G-quadruplex DNA. Supramolecular Chemistry, 2016, 28, 18-28.	1.5	1