

# Frank E Mcdonald

## List of Publications by Year in descending order

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2471  
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#	ARTICLE	IF	CITATIONS
1	Organolanthanide-Catalyzed Hydroamination/Cyclization. Efficient Allene-Based Transformations for the Syntheses of Naturally Occurring Alkaloids. <i>Journal of the American Chemical Society</i> , 1999, 121, 3633-3639.	13.7	276
2	Stereoselective Glycosylations of a Family of 6-Deoxy-1,2-glycals Generated by Catalytic Alkynol Cycloisomerization. <i>Journal of the American Chemical Society</i> , 2000, 122, 4304-4309.	13.7	196
3	Organolanthanide-Catalyzed Intramolecular Hydroamination/Cyclization of Aminoallenes. <i>Journal of the American Chemical Society</i> , 1998, 120, 4871-4872.	13.7	166
4	Studies on tumor promoters. 9. A second-generation synthesis of phorbol. <i>Journal of the American Chemical Society</i> , 1990, 112, 4956-4958.	13.7	164
5	Alkynolendo-Cycloisomerizations and Conceptually Related Transformations. <i>Chemistry - A European Journal</i> , 1999, 5, 3103-3106.	3.3	157
6	Organolanthanide-Catalyzed Intramolecular Hydroamination/Cyclization/Bicyclization of Sterically Encumbered Substrates. Scope, Selectivity, and Catalyst Thermal Stability for Amine-Tethered Unactivated 1,2-Disubstituted Alkenes. <i>Journal of Organic Chemistry</i> , 2004, 69, 1038-1052.	3.2	153
7	Asymmetric Synthesis of Nucleosides via Molybdenum-Catalyzed Alkynol Cycloisomerization Coupled with Stereoselective Glycosylations of Deoxyfuranose Glycals and 3-Amidofuranose Glycals. <i>Journal of the American Chemical Society</i> , 1996, 118, 6648-6659.	13.7	133
8	Intramolecular Hydroamination/Cyclization of Aminoallenes Catalyzed by Organolanthanide Complexes. Scope and Mechanistic Aspects. <i>Organometallics</i> , 1999, 18, 1949-1960.	2.3	133
9	Mechanism of Molybdenum Pentacarbonyl-Catalyzed Cyclizations of Alkynols and Epoxyalkynes. <i>Journal of the American Chemical Society</i> , 1994, 116, 9363-9364.	13.7	132
10	Rhodium-Catalyzed Alkyne Cyclotrimerization Strategies for C-Aryl Glycoside Synthesis. <i>Journal of the American Chemical Society</i> , 1995, 117, 6605-6606.	13.7	127
11	A new synthesis of 2,3-dihydrofurans: cycloisomerization of alkynyl alcohols to endocyclic enol ethers. <i>Journal of Organic Chemistry</i> , 1993, 58, 6952-6953.	3.2	118
12	Organolanthanide-Catalyzed Intramolecular Hydroamination/Cyclization of Amines Tethered to 1,2-Disubstituted Alkenes. <i>Organic Letters</i> , 2001, 3, 3091-3094.	4.6	112
13	Convergent Synthesis of Digitoxin: Stereoselective Synthesis and Glycosylation of the Digoxin Trisaccharide Glycal This research was supported by the U.S. National Institutes of Health (CA-59703). F.E.M. also thanks Novartis Pharmaceuticals for unrestricted additional funding (Grant Program for) Tj ETQq1 1 0.784.314 rg BT/Overl <i>International Edition</i> , 2001, 40, 3659.	13.7	111
14	Group VI metal-promoted endo-azacyclizations via alkyne-derived metal vinylidene carbenes. <i>Tetrahedron Letters</i> , 1997, 38, 7687-7690.	1.4	102
15	Synthesis of Seven-Membered Ring Glycals via endo-Selective Alkynol Cycloisomerization. <i>Organic Letters</i> , 2004, 6, 3877-3880.	4.6	90
16	Total Synthesis of the Polyene-Polyol Macrolide RK-397, Featuring Cross-Couplings of Alkynylepoxy Modules. <i>Journal of the American Chemical Society</i> , 2004, 126, 2495-2500.	13.7	88
17	Group VI metal-promoted endo-carbocyclizations via alkyne-derived metal vinylidene carbenes. <i>Tetrahedron Letters</i> , 1997, 38, 7691-7692.	1.4	87
18	Endo-Oxacyclizations of Polyepoxides: A Biomimetic Synthesis of Fused Polycyclic Ethers. <i>Journal of Organic Chemistry</i> , 2002, 67, 2515-2523.	3.2	86

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19	Application of Glycals to the Synthesis of Oligosaccharides: Convergent Total Syntheses of the Lewis X Trisaccharide Sialyl Lewis X Antigenic Determinant and Higher Congeners. <i>Journal of the American Chemical Society</i> , 1995, 117, 1940-1953.	13.7	84
20	Biomimetic Synthesis of <i>trans,syn,trans</i> -Fused Polyoxepanes: Remarkable Substituent Effects on the <i>endo</i> -Regioselective Oxacyclization of Polyepoxides. <i>Journal of the American Chemical Society</i> , 2005, 127, 4586-4587.	13.7	80
21	<i>syn</i> -Oxidative Polycyclizations of Hydroxypolyenes: Highly Stereoselective and Potentially Biomimetic Syntheses of <i>all-trans</i> -Polytetrahydrofurans. <i>Journal of the American Chemical Society</i> , 1997, 119, 6022-6028.	13.7	78
22	Stereoselective Synthesis of Vancosamine and Saccharosamine Glycals via Tungsten-Catalyzed Alkynol Cycloisomerization. <i>Organic Letters</i> , 2002, 4, 749-752.	4.6	76
23	A stereoselective route from glycals to asparagine-linked N-protected glycopeptides. <i>Journal of Organic Chemistry</i> , 1992, 57, 7001-7002.	3.2	73
24	Synthesis of Oxepanes and <i>trans</i> -Fused Bisoxepanes via Biomimetic, <i>endo</i> -Regioselective Tandem Oxacyclizations of Polyepoxides. <i>Organic Letters</i> , 2000, 2, 2917-2919.	4.6	73
25	Stereoselective Synthesis of <i>d</i> -Desosamine and Related Glycals via Tungsten-Catalyzed Alkynol Cycloisomerization. <i>Organic Letters</i> , 2004, 6, 1601-1603.	4.6	73
26	Novel Strategy for Oligosaccharide Synthesis Featuring Reiterative Alkynol Cycloisomerization. <i>Journal of the American Chemical Society</i> , 1998, 120, 4246-4247.	13.7	65
27	Biomimetic Synthesis of Fused Polypyranes: Oxacyclization Stereo- and Regioselectivity Is a Function of the Nucleophile. <i>Organic Letters</i> , 2003, 5, 2123-2126.	4.6	65
28	Computational Studies of Tungsten-Catalyzed <i>endo</i> -Selective Cycloisomerization of 4-Pentyn-1-ol. <i>Journal of the American Chemical Society</i> , 2002, 124, 4149-4157.	13.7	59
29	Tungsten carbonyl-induced cyclizations of alkynyl alcohols to dihydropyranilidene carbenes and $\beta$ -stannyl dihydropyrans. <i>Tetrahedron Letters</i> , 1996, 37, 4675-4678.	1.4	58
30	Synthesis of pyranose glycals via tungsten and molybdenum pentacarbonyl-induced alkynol cyclizations. <i>Tetrahedron</i> , 1997, 53, 11061-11068.	1.9	56
31	New Chiral Synthons for Efficient Introduction of Bispropionates via Stereospecific Oxonia <sup>+</sup> Cope Rearrangements. <i>Journal of the American Chemical Society</i> , 2006, 128, 4568-4569.	13.7	55
32	Asymmetric Syntheses of Stavudine ( <i>d</i> 4T) and Cordycepin by Cycloisomerization of Alkynyl Alcohols to Endocyclic Enol Ethers. <i>Angewandte Chemie International Edition in English</i> , 1995, 34, 350-352.	4.4	54
33	Total Syntheses of Durgamone, Nakorone, and Abudinol B via Biomimetic Oxa- and Carbacyclizations. <i>Journal of the American Chemical Society</i> , 2007, 129, 1050-1051.	13.7	53
34	Fischer Carbene Catalysis of Alkynol Cycloisomerization: Application to the Synthesis of the Altromycin B Disaccharide. <i>Organic Letters</i> , 2007, 9, 1737-1740.	4.6	53
35	Alkene Substituents for Selective Activation of <i>endo</i> -Regioselective Polyepoxide Oxacyclizations. <i>Organic Letters</i> , 2004, 6, 4487-4489.	4.6	52
36	<i>syn</i> -Oxidative Polycyclization of Hydroxy Polyenes: A New Approach to Polyether Synthesis. <i>Journal of the American Chemical Society</i> , 1994, 116, 7921-7922.	13.7	50

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37	A Reiterative Synthesis of Trans-Fused Polypyranes via Tungsten Pentacarbonyl-Promoted Alkynol Endocyclization. <i>Journal of Organic Chemistry</i> , 1998, 63, 3680-3682.	3.2	50
38	Discovery of the tungsten carbonyl-catalyzed endo-selective alkynyl alcohol cycloisomerization reaction: applications to stereoselective syntheses of d-olivose, d-olivose disaccharide substructures of landomycin and mithramycin. <i>Journal of Organometallic Chemistry</i> , 2001, 617-618, 444-452.	1.8	49
39	Stereo- and Regioselective Glycosylations to the Bis-C-arylglycoside of Kidamycin. <i>Organic Letters</i> , 2007, 9, 3547-3550.	4.6	48
40	Novel Synthesis of .alpha.-Stannyl Vinyl Ethers from Catalytic and Stoichiometric Fischer Carbene Anions. <i>Organometallics</i> , 1995, 14, 3628-3629.	2.3	47
41	Studies on tumor promoters. 10. Synthesis of the abc ring system of the tiglianes and daphnanes by a zirconium-mediated intramolecular enyne carbocyclization. <i>Tetrahedron Letters</i> , 1990, 31, 3691-3694.	1.4	46
42	Stereoselective Synthesis of l-Olivose Trisaccharide via Iterative Alkynol Cycloisomerization and Acid-Catalyzed Glycosylation. <i>Organic Letters</i> , 2002, 4, 3979-3981.	4.6	45
43	Sulfur-Alkyne Cyclizations for Formation of Dihydrothiophenes and Annulated Thiophenes. <i>Synthesis</i> , 2000, 2000, 970-974.	2.3	44
44	Synthesis of the Branched C-Glycoside Substructure of Altromycin B. <i>Organic Letters</i> , 2005, 7, 3621-3624.	4.6	44
45	Total Synthesis of the Sphingolipid Biosynthesis Inhibitor Fumonisin B <sub>1</sub> . <i>Journal of the American Chemical Society</i> , 2009, 131, 6066-6067.	13.7	44
46	Concise, Regioselective Synthesis of the ABC Tristetrahydropyran of Thyriferol and Venustatriol. <i>Organic Letters</i> , 2002, 4, 593-595.	4.6	43
47	Acylperhenate-Induced Tandem syn-Oxidative Cyclizations of Hydroxydienes. <i>Journal of Organic Chemistry</i> , 1995, 60, 5750-5751.	3.2	41
48	Stereoselective Synthesis of a Family of Alternating Polyols from Six-Carbon Epoxyalkynol Modules. <i>Journal of the American Chemical Society</i> , 2002, 124, 8188-8189.	13.7	41
49	1-Deoxy-5-hydroxysphingolipids as New Anticancer Principles: An Efficient Procedure for Stereoselective Syntheses of 2-Amino-3,5-diols. <i>Organic Letters</i> , 2005, 7, 3155-3157.	4.6	38
50	Synthesis of the Aglycones of Altromycins and Kidamycin from a Common Intermediate. <i>Organic Letters</i> , 2005, 7, 3617-3620.	4.6	37
51	1,5- $\beta$ -d-Mannoseptanosides, Ring-Size Isomers That Are Impervious to $\beta$ -Mannosidase-Catalyzed Hydrolysis. <i>Organic Letters</i> , 2009, 11, 851-854.	4.6	33
52	Brønsted Acid-Promoted Glycosylations of Disaccharide Glycal Substructures of the Saccharomycins. <i>Organic Letters</i> , 2009, 11, 4850-4853.	4.6	32
53	Chemistry Unbound: Designing a New Four-Year Undergraduate Curriculum. <i>Journal of Chemical Education</i> , 2019, 96, 35-46.	2.3	32
54	Synthesis of Monodisperse Oligo-p-phenylenes via Rhodium-Catalyzed Alkyne Cyclotrimerization. <i>Organic Letters</i> , 2002, 4, 745-748.	4.6	30

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55	Density Functional Study of Mo-Carbonyl-Catalyzed Alkynol Cycloisomerization: Comparison with W-Catalyzed Reaction. <i>Organometallics</i> , 2005, 24, 2921-2929.	2.3	30
56	Convergent Synthesis of Fostriecin via Selective Alkene Couplings and Regioselective Asymmetric Dihydroxylation. <i>Organic Letters</i> , 2009, 11, 5498-5501.	4.6	30
57	Biomimetic Syntheses from Squalene-Like Precursors: Synthesis of Abudinol B and Reassessment of the Structure of Muzitone. <i>Journal of the American Chemical Society</i> , 2010, 132, 5300-5308.	13.7	30
58	Mimicking Biosynthesis: Total Synthesis of the Triterpene Natural Product Abudinol B from a Squalene-Like Precursor. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 4377-4379.	13.8	28
59	Syn-Oxidative cyclizations of trishomoallylic alcohols: Stereoselective and stereospecific synthesis of trans-tetrahydropyranyl alcohols. <i>Tetrahedron Letters</i> , 1997, 38, 7683-7686.	1.4	26
60	Biomimetic synthesis via polyepoxide cyclizations. <i>Pure and Applied Chemistry</i> , 2007, 79, 281-291.	1.9	26
61	Modular Synthesis of the C9-C27 Degradation Product of Aflastatin A via Alkyne-Epoxy Cross-Couplings. <i>Organic Letters</i> , 2008, 10, 1811-1814.	4.6	25
62	Sequential application of stereoselective syn-oxidation methodologies to natural product synthesis: A potentially biomimetic approach to the C12-C21 bistetrahydrofuran region of monensin. <i>Tetrahedron</i> , 1997, 53, 16435-16448.	1.9	23
63	A Short, Enantioselective Synthesis of the AB-Ring Substructure of the Brevetoxins via endo-Selective Alkynol Cycloisomerization. <i>Journal of Organic Chemistry</i> , 1997, 62, 6432-6435.	3.2	22
64	Synthesis of 1-Deoxysphingosine Derivatives with Conformationally Restricted Pyrrolidinediol Head Groups. <i>Organic Letters</i> , 2006, 8, 649-652.	4.6	20
65	Synthesis of trans-syn-trans fused bis-pyrans via endo-selective cyclizations of cyclic sulfates. <i>Tetrahedron Letters</i> , 1999, 40, 2235-2238.	1.4	18
66	Stereo- and Regioselective Synthesis of Squalene Tetraepoxide. <i>Journal of Organic Chemistry</i> , 2009, 74, 8407-8409.	3.2	16
67	Synthesis of the Saccharomicin Fucose Aglycon Conjugate and Determination of Absolute Configuration. <i>Organic Letters</i> , 2005, 7, 4749-4752.	4.6	15
68	Asymmetrische Synthese von Stavudin (d4T) und Cordycepin durch Cycloisomerisierung von Alkynylalkoholen zu endocyclischen Enolethern. <i>Angewandte Chemie</i> , 1995, 107, 356-358.	2.0	12
69	Stereoselectivity of electrophile-promoted oxacyclizations of 1,4-dihydroxy-5-alkenes to 3-hydroxytetrahydropyrans. <i>Tetrahedron</i> , 2013, 69, 7746-7758.	1.9	12
70	Stereoselective Synthesis of Pyrans from Epoxyalkenes: Dual Catalysis with Palladium and Brønsted Acid. <i>Journal of Organic Chemistry</i> , 2018, 83, 6259-6274.	3.2	11
71	Fumonisin: A template for methodology development and drug discovery. <i>Pure and Applied Chemistry</i> , 2011, 83, 445-459.	1.9	10
72	Stereo- and Regioselective Synthesis of 2-Amino-3,5-diols via Stereospecific Crotyl Transfer and Regioselective Aminohydroxylation. <i>Synthesis</i> , 2012, 44, 3639-3648.	2.3	9

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73	Synthesis of Human Milk Oligosaccharides: 2'- and 3'-Fucosyllactose. <i>Heterocycles</i> , 2012, 84, 637.	0.7	9
74	Synthesis of the ABC Substructure of Brevenal by Sequential <i>exo</i> -Mode Oxacyclizations of Acyclic Polyene Precursors. <i>Organic Letters</i> , 2017, 19, 6036-6039.	4.6	9
75	Biomimetic Synthesis of <i>trans,syn,trans</i> -Fused Polycyclic Ethers. <i>Synlett</i> , 2006, 2006, 1816-1828.	1.8	8
76	Iodoetherification of Conformationally Restricted Dienyl Alcohols: Unexpected Formation of Oxocenes by 8-endo-mode Oxacyclizations. <i>Heterocycles</i> , 2014, 88, 1519.	0.7	6
77	Gram-scale, chemoselective synthesis of N-[2-(5-hydroxy-1H-indol-3-yl)ethyl]-2-oxopiperidine-3-carboxamide (HIOC). <i>Tetrahedron Letters</i> , 2015, 56, 3413-3415.	1.4	6
78	Synthesis of 15,28-Dideoxy-15,28-didehydrothyrsenol. <i>Heterocycles</i> , 2012, 86, 535.	0.7	5
79	Sequential <i>exo</i> -mode oxacyclizations for the synthesis of the CD substructure of brevenal. <i>Journal of Antibiotics</i> , 2019, 72, 364-374.	2.0	3
80	1-Deoxy-5-hydroxysphingolipids as New Anticancer Principles: An Efficient Procedure for Stereoselective Syntheses of 2-Amino-3,5-diols. <i>Organic Letters</i> , 2007, 9, 2959-2959.	4.6	2
81	Regioselectivity of Mercury-Promoted Oxacyclizations of Alkynyl Diols. <i>Synlett</i> , 2017, 28, 2951-2955.	1.8	2
82	Chapter 12 The invention of the alkynol cycloisomerization reaction: Application to the synthesis of digitoxin. <i>Strategies and Tactics in Organic Synthesis</i> , 2004, 5, 391-415.	0.1	1
83	Alkynylation of Pentose Derivatives with Stereochemical Fidelity: Implications for the Regioselectivity of Alkynyl Diol Cycloisomerizations to Cyclic Enol Ethers. <i>Organic Letters</i> , 2019, 21, 3295-3298.	4.6	1
84	Organolanthanoid-Catalyzed Intramolecular Hydroamination/Cyclization/Bicyclization of Sterically Encumbered Substrates. Scope, Selectivity, and Catalyst Thermal Stability for Amine-Tethered Unactivated 1,2-Disubstituted Alkenes.. <i>ChemInform</i> , 2004, 35, no.	0.0	0
85	Synthesis of Seven-Membered Ring Glycals via <i>endo</i> -Selective Alkynol Cycloisomerization.. <i>ChemInform</i> , 2005, 36, no.	0.0	0
86	Alkene Substituents of Selective Activation of <i>endo</i> -Regioselective Polyepoxide Oxacyclizations.. <i>ChemInform</i> , 2005, 36, no.	0.0	0
87	The Invention of the Alkynol Cycloisomerization Reaction: Application to the Synthesis of Digitoxin. <i>ChemInform</i> , 2005, 36, no.	0.0	0
88	Biomimetic Synthesis of Fused Bispyran: Lewis Acid Effects on Oxacyclizations of Polyepoxides. <i>Synthesis</i> , 2007, 2007, 2337-2342.	2.3	0
89	The Adventure of Abudinol and the Misadventure of Muzitone. <i>Strategies and Tactics in Organic Synthesis</i> , 2012, 8, 225-260.	0.1	0
90	A Tropomyosin-Related Kinase B Receptor Activator for the Management of Ocular Blast-Induced Vision Loss. <i>Journal of Neurotrauma</i> , 2021, 38, 2896-2906.	3.4	0