

# Richard D Ernst

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7946807/publications.pdf>

Version: 2024-02-01

93  
papers

2,339  
citations

186265

28  
h-index

243625

44  
g-index

96  
all docs

96  
docs citations

96  
times ranked

816  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural and reactivity patterns in transition-metal-pentadienyl chemistry. <i>Chemical Reviews</i> , 1988, 88, 1255-1291.	47.7	199
2	Pentadienyl Ligands: Their Properties, Potential, and Contributions to Inorganic and Organometallic Chemistry. <i>Comments on Inorganic Chemistry</i> , 1999, 21, 285-325.	5.2	98
3	Metal-pentadienyl chemistry. <i>Accounts of Chemical Research</i> , 1985, 18, 56-62.	15.6	96
4	The nature of bis(cyclopentadienyl)uranium dichloride and cyclopentadienyluranium trichloride in solution and in the solid state. <i>Journal of the American Chemical Society</i> , 1979, 101, 2656-2664.	13.7	82
5	Shorter Nonbonded Than Bonded Contacts or Nonclassical Metal-to-Saturated Carbon Atom Interactions?. <i>Journal of the American Chemical Society</i> , 1998, 120, 2959-2960.	13.7	76
6	Metal-metal bond cleavage reactions. The crystallization and solid state structural characterization of cadmium tetracarbonyliron, CdFe(CO) <sub>4</sub> . <i>Journal of the American Chemical Society</i> , 1977, 99, 2090-2098.	13.7	70
7	Structure and bonding in metal-pentadienyl and related compounds. , 1984, , 1-53.		65
8	Investigation of Zr <sup>η</sup> C, Zr <sup>η</sup> N, and Potential Agostic Interactions in an Organozirconium Complex by Experimental Electron Density Analysis. <i>Journal of the American Chemical Society</i> , 2003, 125, 1937-1949.	13.7	63
9	Structural and Spectroscopic Demonstration of Agostic C <sup>η</sup> C Interactions in Electron-Deficient Metallacyclobutanes and Related Cage Complexes: A Possible Implications for Olefin Polymerizations and Metatheses. <i>Journal of the American Chemical Society</i> , 2005, 127, 16426-16435.	13.7	55
10	Synthesis and characterization of bis(pentadienyl)iron and several methylated derivatives. <i>Organometallics</i> , 1983, 2, 1220-1228.	2.3	54
11	Open and half-open ruthenocenes and osmocenes: protonations, structures, and reactions with carbonyl and phosphine ligands. <i>Organometallics</i> , 1990, 9, 2962-2972.	2.3	54
12	Reactions of SF <sub>6</sub> with Organotitanium and Organozirconium Complexes: The <sup>η</sup> 5-SF <sub>6</sub> as a Reactive Fluorinating Agent. <i>Journal of the American Chemical Society</i> , 2005, 127, 11924-11925.	13.7	51
13	SF <sub>6</sub> as a Selective and Reactive Fluorinating Agent for Low-Valent Transition Metal Complexes#. <i>Organometallics</i> , 2007, 26, 2872-2879.	2.3	51
14	Ring fusion and polycyclic ring constructions via half-open titanocenes. <i>Journal of the American Chemical Society</i> , 1992, 114, 6252-6254.	13.7	48
15	Half-open ruthenocenes derived from [Ru(C <sub>5</sub> Me <sub>5</sub> )Cl] <sub>4</sub> : syntheses, characterizations, and solid-state structures. <i>Organometallics</i> , 1992, 11, 1686-1692.	2.3	46
16	Charge Density Analysis of the (C <sup>η</sup> C) <sup>η</sup> Ti Agostic Interactions in a Titanacyclobutane Complex. <i>Journal of the American Chemical Society</i> , 2009, 131, 6154-6160.	13.7	43
17	Syntheses, characterization, and structural and kinetic studies of half-open chromocenes and their ligand adducts. <i>Journal of the American Chemical Society</i> , 1991, 113, 6509-6520.	13.7	42
18	Ethylene polymerization over organochromium catalysts: A comparison between closed and open pentadienyl ligands. <i>Journal of Polymer Science Part A</i> , 1987, 25, 2063-2075.	2.3	36

#	ARTICLE	IF	CITATIONS
19	Pentadienyl Complexes of the Group 4 Transition Metals. <i>Advances in Organometallic Chemistry</i> , 2007, 137-199.	1.0	36
20	Chemical and structural relationships among the oligomeric compounds $MFe(CO)_4$ (M = zinc, ...). <i>Inorganic Chemistry</i> , 1978, 17, 1477-1484.	4.0	35
21	Synthesis and characterization of bis(pentadienyl)ruthenium compounds. <i>Organometallics</i> , 1983, 2, 1229-1234.	2.3	35
22	Syntheses, characterization, and structural studies of Lewis base adducts of half-open vanadocenes, $V(C_5H_5)(Pdl)(L)$ . <i>Organometallics</i> , 1993, 12, 1553-1558.	2.3	34
23	Iron Aerogel and Xerogel Catalysts for Fischer-Tropsch Synthesis of Diesel Fuel. <i>Energy &amp; Fuels</i> , 2009, 23, 14-18.	5.1	33
24	Cycloheptatrienyl-Pentadienyl Complexes of Zirconium (Half-Open Zirconocenes): Syntheses, Structures, Bonding, and Chemistry. <i>Organometallics</i> , 2009, 28, 5866-5876.	2.3	32
25	Phosphine adducts of the open metallocenes of zirconium, hafnium, niobium, and molybdenum: syntheses, structures, and reactions with carbon monoxide. <i>Organometallics</i> , 1993, 12, 1543-1552.	2.3	31
26	$Zr(C_5H_5)(6,6\text{-dmch})(PMe_3)_2$ , an edge-bridged half-open zirconocene synthesis, structure, and its reaction with $C_6H_5C_2SiMe_3$ . <i>Inorganica Chimica Acta</i> , 2002, 334, 17-24.	2.4	31
27	Pentadienyl, a More Reactive and More Strongly Bound Ligand Than Cyclopentadienyl. <i>Angewandte Chemie International Edition in English</i> , 1988, 27, 1099-1101.	4.4	30
28	Crystallization and solid-state structural characterization of (2,2'-bipyridyl)zinc tetracarbonyliron, $(bpy)ZnFe(CO)_4$ . <i>Inorganic Chemistry</i> , 1980, 19, 2375-2381.	4.0	29
29	Unprecedented Diastereoselective Addition Reactions of 6,6-Dimethylcyclohexadienyl Titanium Complexes to Aldehydes and Ketones. <i>Journal of the American Chemical Society</i> , 1995, 117, 8490-8491.	13.7	29
30	Metal-metal bond cleavage reactions. The crystal and molecular structure of (2,2'-bipyridyl)cadmium tetracarbonyliron, $(bpy)CdFe(CO)_4$ . <i>Journal of the American Chemical Society</i> , 1977, 99, 2098-2107.	13.7	28
31	A New Versatile Approach to Substituted Cyclopentadienyl-Cycloheptatrienyl Complexes of Zirconium (Zirconocenes). <i>Organometallics</i> , 2009, 28, 7041-7046.	2.3	28
32	Reactions of Imines with Half-Open Titanocenes: Substituent Effects and Tandem Couplings with Nitriles and Isonitriles. <i>Organometallics</i> , 1999, 18, 4174-4182.	2.3	26
33	Half-open titanocene chemistry: coupling reactions of pentadienyl ligands with carbon-nitrogen and carbon-oxygen multiple bonds. <i>Organometallics</i> , 1992, 11, 3201-3209.	2.3	25
34	Synthesis, characterization, and solid-state structures of the 14-electron open metallocenes $M[1,5-(Me_3Si)_2C_5H_5]_2$ (M= Ti or Zr). <i>Journal of Organometallic Chemistry</i> , 1995, 501, 95-100.	1.8	25
35	Syntheses, Characterization, and Structural Studies of Half-Open Zirconocenes. <i>Organometallics</i> , 2002, 21, 3182-3188.	2.3	25
36	Syntheses and characterization of the edge-bridged open metallocenes $M(C_8H_{11})_2$ ( $C_8H_{11}$ =...cyclooctadienyl; M=...Ti, V, Cr or Fe). <i>Journal of the Chemical Society Dalton Transactions</i> , 1999, 3995-4001.		24

#	ARTICLE	IF	CITATIONS
37	Coordination chemistry of half-open zirconocenes: Adduct formation of $[(\eta^7\text{-C}_7\text{H}_7)\text{Zr}(\eta^5\text{-2,4-C}_7\text{H}_11)]$ with isocyanides, phosphines and N-heterocyclic carbenes. <i>Inorganica Chimica Acta</i> , 2010, 364, 23-29.	2.4	24
38	Tandem couplings of imines and other unsaturated organic compounds with a half-open titanocene. <i>Journal of the Chemical Society Dalton Transactions</i> , 1999, , 1883-1890.	1.1	23
39	Pentadienyls vs Cyclopentadienyls and Reversal of Metal-Ligand Bonding Affinity with Metal Oxidation State: A Synthesis, Molecular Structures, and Electronic Structures of High-Valent Zirconium Pentadienyl Complexes. <i>Journal of the American Chemical Society</i> , 2004, 126, 14105-14116.	13.7	23
40	Incorporation of polybasic aromatic amines into ruthenium(II) chloro complexes. <i>Polyhedron</i> , 2004, 23, 2725-2731.	2.2	23
41	Coupling reactions of alkynes with half-open titanocenes: Agostic $(\text{C}\equiv\text{C})\cdots\text{Ti}$ interactions in a tetra(alkyne) coupling product with the $\text{Ti}(\text{C}_5\text{H}_5)(\text{C}-\text{C}_8\text{H}_{11})$ fragment. <i>Journal of Organometallic Chemistry</i> , 2006, 691, 5211-5217.	1.8	23
42	Synthesis, characterization, and organic chemistry of an edge-bridged half-open titanocene. <i>Inorganica Chimica Acta</i> , 2000, 300-302, 65-72.	2.4	18
43	Reactions of $\text{Zr}(\text{C}_5\text{H}_5)(6,6\text{-dmch})(\text{PMe}_3)_2$ and $\text{Zr}(6,6\text{-dmch})_2(\text{PMe}_3)_2$ (dmch=dimethylcyclohexadienyl) with CO and alkynes. <i>Inorganica Chimica Acta</i> , 2004, 357, 3883-3888.	2.4	18
44	Transition-Metal Complexes with $(\text{C}\equiv\text{C})\cdots\text{M}$ Agostic Interactions. <i>European Journal of Inorganic Chemistry</i> , 2017, 2017, 1205-1226.	2.0	18
45	Solid-state structure of bis(2,3,4-trimethylpentadienyl)iron. <i>Journal of Organometallic Chemistry</i> , 1987, 321, 389-395.	1.8	17
46	Incorporation of Siloxy-Substituted Diene and Dienyl Ligands into $\text{Ru}(\text{C}_5\text{Me}_5)$ Complexes. <i>Organometallics</i> , 1994, 13, 3914-3920.	2.3	17
47	Higher Valent Metal Pentadienyl Chemistry: A Syntheses, Structures, and Reactions of $\text{Zr}(6,6\text{-dmch})_2\text{X}_2$ Complexes (dmch = dimethylcyclohexadienyl; X = Cl, Br, I) and Related Species. <i>Organometallics</i> , 2005, 24, 3974-3981.	2.3	17
48	Incorporation of phenyl-substituted pentadienyl ligands in (pentamethylcyclopentadienyl)ruthenium complexes. <i>Dalton Transactions RSC</i> , 2000, , 3086-3093.	2.3	16
49	Synthesis and structure of the edge-bridged open zirconocene, $\text{Zr}(6,6\text{-dmch})_2(\text{PMe}_3)_2$ (dmch=dimethylcyclohexadienyl), and its imine coupling product. <i>Journal of Organometallic Chemistry</i> , 2003, 683, 64-69.	1.8	16
50	Synthesis, Characterization, and Structural Studies of Transition Metal Open Fulvalene Complexes. <i>Organometallics</i> , 1998, 17, 4240-4248.	2.3	15
51	Bonding in $\eta^5$ -closed, $\eta^6$ -open, and half-open ferrocenes: new insight from structural and Mössbauer spectroscopic studies. <i>Journal of Organometallic Chemistry</i> , 2001, 637-639, 172-181.	1.8	15
52	Structural, Spectroscopic, and Electrochemical Studies of Edge-Bridged Open Ferrocenes. <i>Organometallics</i> , 2003, 22, 1487-1493.	2.3	15
53	Synthetic, structural and PE spectroscopic studies on bis(pentadienyl) compounds of iron, ruthenium and osmium. The role of the heavy metal. <i>Journal of Organometallic Chemistry</i> , 1987, 326, 257-268.	1.8	14
54	Reaction of Chromium(III) Chloride with the Cycloheptadienyl Anion: A Susceptibility of Edge Bridges To $\text{C}\cdots\text{H}$ Activation Reactions. <i>Organometallics</i> , 2003, 22, 812-817.	2.3	14

#	ARTICLE	IF	CITATIONS
55	Structural characterization of open, half-open, and closed ferrocenes in solution by $^{57}\text{Fe}$ and $^{13}\text{C}$ NMR spectroscopy. <i>Journal of Organometallic Chemistry</i> , 1989, 375, 115-121.	1.8	13
56	Synthesis and characterization of a dimeric acetone coupling product with a titanium $\eta^5$ -pentadienyl complex. <i>Journal of Organometallic Chemistry</i> , 1999, 583, 42-46.	1.8	13
57	Half-Sandwich Ruthenium-Phosphine Complexes with Pentadienyl and Oxo- and Azapentadienyl Ligands. <i>Organometallics</i> , 2012, 31, 7125-7145.	2.3	13
58	Synthesis and characterization of siloxy-substituted diene and dienyl complexes of the $\text{Ru}(\text{C}_5\text{Me}_5)$ fragment. <i>Inorganica Chimica Acta</i> , 1999, 296, 170-175.	2.4	12
59	Origin of 1,4-Regiochemistry in the Dicyouplings of Ketones with 6,6-Dimethylcyclohexadienyl Complexes of Titanium and Zirconium: A Mechanism Arising from Five-Electron Donation by Alkoxide Ligands. <i>Organometallics</i> , 2005, 24, 3982-3986.	2.3	12
60	Silyl Substitution Effects on Metal $\eta^5$ -Pentadienyl Bonding: A Synthesis, Structure, Photoelectron Spectroscopy, and Electronic Structure of a High-Valent Half-Open Zirconocene. <i>Organometallics</i> , 2007, 26, 2867-2871.	2.3	12
61	Synthesis and characterization of $\text{Fe}(\text{1-Me}_3\text{Si-3-CH}_3\text{C}_5\text{H}_5)_2$ , an open ferrocene derived from an unsymmetric pentadienyl ligand. <i>Journal of Organometallic Chemistry</i> , 1995, 485, 25-29.	1.8	11
62	Synthesis and characterization of phosphine adducts of the open zirconocene $\text{Zr}(\text{C}_5\text{H}_7)_2$ . <i>Journal of Organometallic Chemistry</i> , 1995, 503, 29-33.	1.8	11
63	$\text{RuH}_3[\text{P}(\text{C}_6\text{H}_5)_3]_3$ ? as a ligand in complexes with $\text{M}(\text{CO})_3$ Fragments (M = Cr, Mo, W). <i>Journal of Cluster Science</i> , 1996, 7, 629-641.	3.3	11
64	Syntheses and characterization of mono(6,6-dimethylcyclohexadienyl) complexes of titanium and zirconium. <i>Polyhedron</i> , 2006, 25, 876-880.	2.2	11
65	The reaction of the bis(6,6-dimethylcyclohexadienyl)zirconium fragment with $\text{PhC}_2\text{SiMe}_3$ A 5+2+2 ring construction. <i>Journal of Molecular Structure</i> , 2008, 890, 107-111.	3.6	11
66	Syntheses and structural systematics of trialkylphosphine complexes of open titanocenes, zirconocenes and hafnocenes. <i>Dalton Transactions</i> , 2004, , 1221.	3.3	10
67	Preparation of ruthenium(II) chloride complexes of polybasic amines. <i>Inorganica Chimica Acta</i> , 2006, 359, 839-845.	2.4	10
68	Reactions of the 6,6-dimethylcyclohexadienyl anion with $\text{MCl}_4(\text{PMe}_3)_2$ complexes (M=Hf, Nb) A $\eta^5$ Isolation of complex intramolecular coupling products. <i>Journal of Organometallic Chemistry</i> , 2008, 693, 1420-1425.	1.8	8
69	Fused ring systems derived from reactions of half-open titanocenes with diynes: Syntheses, characterization, cage rearrangements, and structural studies. <i>Journal of Organometallic Chemistry</i> , 2009, 694, 1112-1121.	1.8	8
70	Structural Studies of $(\text{Pyridine})_3\text{ZnFe}(\text{CO})_4$ and $(\text{Pyridine})(\text{Neocuproin})\text{CdFe}(\text{CO})_4$ . <i>Journal of Chemical Crystallography</i> , 2010, 40, 778-782.	1.1	8
71	Synthetic, spectroscopic, and structural studies of bis(2-methyl-4-phenylpentadienyl)ruthenium, $\text{Ru}(\text{2-CH}_3\text{-4-C}_6\text{H}_5\text{C}_5\text{H}_5)_2$ : characterization of isomeric open ruthenocenes. <i>Journal of Organometallic Chemistry</i> , 2003, 672, 109-114.	1.8	7
72	Edge-bridged half-open zirconocenes: Synthesis, characterization, and reaction with diphenylacetylene. <i>Journal of Organometallic Chemistry</i> , 2007, 692, 4460-4466.	1.8	6

#	ARTICLE	IF	CITATIONS
73	Syntheses and characterization of the W(II) and W(III) N <sub>2</sub> complexes, [WCl <sub>2</sub> (PMe <sub>3</sub> ) <sub>3</sub> ] <sub>2</sub> N <sub>2</sub> and [WCl <sub>3</sub> (PMe <sub>3</sub> ) <sub>2</sub> ] <sub>2</sub> N <sub>2</sub> . <i>Inorganica Chimica Acta</i> , 2010, 363, 221-224.	2.4	6
74	Use of pyrazolyl ligands for the formation of a bimetallic cobalt-ruthenium complex. <i>Polyhedron</i> , 2011, 30, 1899-1905.	2.2	6
75	Synthetic Doped Amorphous Ferrihydrite for the Fischer-Tropsch Synthesis of Alternative Fuels. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, 51, 4515-4522.	3.7	5
76	Neutron Diffraction Study of [K(18-crown-6)] [(PPh <sub>3</sub> ) <sub>2</sub> ReH <sub>6</sub> Cr(CO) <sub>3</sub> ], a Bimetallic Donor-Acceptor Complex. <i>European Journal of Inorganic Chemistry</i> , 1998, 1998, 851-854.	2.0	4
77	Isolation and Characterization of Bromination Products of Zr(C <sub>5</sub> H <sub>5</sub> ) <sub>2</sub> Br <sub>2</sub> . <i>Organometallics</i> , 2008, 27, 327-333.	2.3	4
78	Structural Studies of the Coupling Products Between (C <sub>6</sub> H <sub>5</sub> )CH=NR (R=C <sub>6</sub> H <sub>5</sub> , i-C <sub>3</sub> H <sub>7</sub> ) and the Ti(C <sub>5</sub> H <sub>5</sub> )(2,4-C <sub>7</sub> H <sub>11</sub> ) Fragment (C <sub>7</sub> H <sub>11</sub> =dimethylpentadienyl). <i>Journal of Chemical Crystallography</i> , 2010, 40, 783-787.	1.1	4
79	Structural Studies of Coupling Products Formed Between (C <sub>6</sub> H <sub>5</sub> )CH=N(C <sub>6</sub> H <sub>5</sub> ) and the M(C <sub>5</sub> H <sub>5</sub> )(6,6-dmch) Fragments (M=Ti, Zr; dmch=dimethylcyclohexadienyl). <i>Journal of Chemical Crystallography</i> , 2011, 41, 1433-1437.	1.1	4
80	Syntheses and Structural Studies of the Coupling Products of the Zr(6,6-dimethylcyclohexadienyl) <sub>2</sub> Fragment with the Diimines (CH <sub>2</sub> ) <sub>n</sub> [N=CH(C <sub>6</sub> H <sub>5</sub> )] <sub>2</sub> (n=3,4). <i>Journal of Chemical Crystallography</i> , 2013, 43, 91-95.	1.1	4
81	Structural Studies of [(py) <sub>2</sub> CdFe(CO) <sub>4</sub> ] <sub>3</sub> and {(THF) <sub>5</sub> [CdFe(CO) <sub>4</sub> ] <sub>3</sub> }. <i>Journal of Crystallography</i> , 2014, 2014, 1-5.	0.0	3
82	Structural Studies of [Ru(1,8-naphthyridine) <sub>4</sub> ] <sub>2</sub> <sup>+</sup> and [Ru(1,5-cyclooctadiene)(1,8-naphthyridine) <sub>2</sub> ] <sub>2</sub> <sup>+</sup> as their Tetrphenylborate Salts. <i>Journal of Chemical Crystallography</i> , 2010, 40, 235-240.	1.1	2
83	Structural Studies of Electron Deficient Titanacyclobutanes. <i>Journal of Chemical Crystallography</i> , 2011, 41, 1391-1394.	1.1	2
84	Synthesis and Structural Study of Tris(-pyrazolyl)hexakis(pyrazole)dicobalt(III) Nitrate. <i>Journal of Crystallography</i> , 2013, 2013, 1-5.	0.0	2
85	Formation and structural study of a mixed ene/enyl ligand on reaction of [Ru(C <sub>5</sub> Me <sub>5</sub> )Cl <sub>2</sub> ] <sub>2</sub> with 1,3-cyclononadiene. <i>Journal of Organometallic Chemistry</i> , 2004, 689, 685-688.	1.8	1
86	Structural Studies of the Isomorphous MCl <sub>2</sub> (PMe <sub>3</sub> ) <sub>4</sub> (M=Mo, W) Complexes. <i>Journal of Chemical Crystallography</i> , 2011, 41, 1438-1441.	1.1	1
87	Structural Studies of the Hexakis(pyridazine)cobalt(II) and Hexakis(pyridazine)ruthenium(II) Ions as their Hexafluorophosphate and Tetrphenylborate Salts. <i>Journal of Chemical Crystallography</i> , 2013, 43, 360-364.	1.1	1
88	Crystallization and Structural Characterization of Dimeric and Trimeric Forms of (Neocuproine) <sub>2</sub> CdFe(CO) <sub>4</sub> . <i>Journal of Crystallography</i> , 2014, 2014, 1-6.	0.0	1
89	Synthesis and Structural Study of the Bis(ethylenediamine) <sub>2</sub> CdFe(CO) <sub>4</sub> Monomer. <i>Journal of Crystallography</i> , 2014, 2014, 1-4.	0.0	0
90	Synthesis and Structural Study of the (N,N,N',N'-Tetraethylethylenediamine) <sub>2</sub> CdFe(CO) <sub>4</sub> Dimer. <i>Journal of Crystallography</i> , 2014, 2014, 1-5.	0.0	0

#	ARTICLE	IF	CITATIONS
91	Transition-Metal Complexes with (C-C) $\sigma$ -M Agostic Interactions. European Journal of Inorganic Chemistry, 2017, 2017, 1204-1204.	2.0	0
92	Preparation, characterization, and structural studies of new ruthenium(II) and ruthenium(III) complexes incorporating pyrazole ligands. Polyhedron, 2021, 209, 115365.	2.2	0
93	Synthetic and structural studies of coupling products of diimines with open half-open titanocenes and zirconocenes. Polyhedron, 2022, , 115993.	2.2	0