

K Peter C Vollhardt

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Cobalt-Mediated [2 + 2 + 2]-Cycloadditions: A Maturing Synthetic Strategy [New Synthetic Methods (43)]. <i>Angewandte Chemie International Edition in English</i> , 1984, 23, 539-556.	4.4	788
2	On the Nature of Nonplanarity in the [N]Phenylenes. <i>Chemistry - A European Journal</i> , 1999, 5, 3399-3412.	3.3	400
3	A new approach to the construction of biphenylenes by the cobalt-catalyzed cocyclization of o-diethynylbenzenes with alkynes. Application to an iterative approach to [3]phenylene, the first member of a novel class of benzocyclobutadienoid hydrocarbons. <i>Journal of the American Chemical Society</i> , 1985, 107, 5670-5687.	13.7	175
4	Molecular solar thermal (MOST) energy storage and release system. <i>Energy and Environmental Science</i> , 2012, 5, 8534.	30.8	171
5	Hexaethynylbenzene. <i>Angewandte Chemie International Edition in English</i> , 1986, 25, 268-269.	4.4	150
6	Total Syntheses of Angular [7]-, [8]-, and [9]Phenylene by Triple Cobalt-Catalyzed Cycloisomerization: Remarkably Flexible Heliphenes. <i>Angewandte Chemie - International Edition</i> , 2002, 41, 3227-3230.	13.8	113
7	Novel Synthesis of the Angular [3]Phenylene (Terphenylene) by Cobalt-Catalyzed Cyclization of Bis(2-ethynylphenyl)ethyne: a Molecule with an Internal Cyclohexatriene Ring. <i>Angewandte Chemie International Edition in English</i> , 1986, 25, 266-268.	4.4	104
8	A Cobalt-Catalyzed One-Step Synthesis of Annelated Pyridines. <i>Angewandte Chemie International Edition in English</i> , 1977, 16, 708-709.	4.4	95
9	The Formal Total Synthesis of (±)-Strychnine via a Cobalt-Mediated [2 + 2 + 2]Cycloaddition. <i>Organic Letters</i> , 2000, 2, 2479-2481.	4.6	89
10	The Effect of Fusion of Angular Strained Rings on Benzene: Crystal Structures of 1,2-Dihydrocyclobuta[a]cyclopropa[c]-, 1,2,3,4-Tetrahydrodicyclobuta[a,c]-, 1,2,3,4-Tetrahydrodicyclobuta[a,c]cyclopropa[e]-, and 1,2,3,4,5,6-Hexahydrotricyclobuta[a,c,e]benzene. <i>Angewandte Chemie International Edition in English</i> , 1994, 33, 313-317.	4.4	87
11	Cobalt Mediated [2+ 2+ 2]-Cycloadditions: A Simple Route to Substituted Cyclopentadienones. <i>Angewandte Chemie International Edition in English</i> , 1980, 19, 1023-1024.	4.4	77
12	The total synthesis of angular [4]- and [5]phenylene. <i>Journal of the American Chemical Society</i> , 1992, 114, 9713-9715.	13.7	70
13	The consequences of π and σ conjugative interactions in mono-, di- and triacetylenes. A photoelectron spectroscopic investigation. <i>Helvetica Chimica Acta</i> , 1975, 58, 2620-2645.	1.6	67
14	Biscarbyne Cluster by Alkyne Cleavage: A General Reaction. <i>Angewandte Chemie International Edition in English</i> , 1980, 19, 559-561.	4.4	64
15	Facile Hydrogenation of the Central Cyclohexatriene of Tris(benzocyclobutadieno)benzene: Synthesis, Structure, and Thermal and Photochemical Isomerization of all-cis-Tris(benzocyclobuta)cyclohexane. <i>Angewandte Chemie International Edition in English</i> , 1990, 29, 1151-1154.	4.4	64
16	C3-Symmetric Hexakis(trimethylsilyl)[7]phenylene [Tris(biphenylenocyclobutadieno)cyclohexatriene], a Polycyclic Benzenoid Hydrocarbon with Slightly Curved Topology. <i>Angewandte Chemie International Edition in English</i> , 1995, 34, 1478-1481.	4.4	61
17	Die ersten Hexabutadiinylbenzolderivate: Synthesen und Strukturen. <i>Angewandte Chemie</i> , 1992, 104, 1643-1645.	2.0	55
18	2,3,9,10-Tetrakis(trimethylsilyl)[5]phenylene. Synthesis via Regiospecific Cobalt-Catalyzed Cocyclization of 1,6-Bis(triisopropylsilyl)-1,3,5-hexatriyne. <i>Angewandte Chemie International Edition in English</i> , 1987, 26, 1246-1247.	4.4	54

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19	The Heat of Hydrogenation of (a) Cyclohexatriene. Journal of the American Chemical Society, 2000, 122, 7819-7820.	13.7	54
20	Cobalt-Mediated [2+2+2] Cycloaddition versus C \equiv H and Ni \equiv H Activation of Pyridones and Pyrazinones with Alkynes: An Experimental Study. Chemistry - A European Journal, 2007, 13, 7443-7465.	3.3	50
21	Tris(benzocyclobutadieno)triphenylene and Its Lower Biphenylene Homologues by Palladium-Catalyzed Cyclizations of 2,3-Didehydrobiphenylene. Organic Letters, 2004, 6, 3557-3560.	4.6	48
22	Alkynylboronates and α -boramides in Co ^I and Rh ^I -Catalyzed [2+2+2] Cycloadditions: Construction of Oligoaryls through Selective Suzuki Couplings. European Journal of Organic Chemistry, 2011, 2011, 3283-3292.	2.4	48
23	Cobalt-katalysierte einstufige Synthese von anellierten Pyridinen. Angewandte Chemie, 1977, 89, 758-759.	2.0	47
24	The First Hexabutadiynylbenzenes: Synthesis and Structures. Angewandte Chemie International Edition in English, 1992, 31, 1643-1645.	4.4	46
25	A Novel Phenylene Topology: Total Syntheses of Zigzag [4]- and [5]Phenylene. Angewandte Chemie - International Edition, 1999, 38, 800-804.	13.8	45
26	Photoinduced N ₂ loss as a route to long-lived organometallic alkane complexes: A time-resolved IR and NMR study. Chemical Science, 2010, 1, 622.	7.4	44
27	Der Effekt angular anellierter, gespannter Ringe auf Benzol: Strukturen von 1,2-Dihydrocyclobuta[1.2]cyclopropa[1.2]ä, 1,2,3,4-Tetrahydrodicyclobuta[1.2,3,4]ä, 1,2,3,4-Tetrahydrodicyclobuta[1.2,3,4]ä und 1,2,3,4,5,6-Hexahydrotricyclobuta[1.2,3,4,5,6]ä/benzol im Kristall. Angewandte Chemie, 1994, 106, 321-325.	2.0	40
28	Cobalt-Mediated [2+2+2] Cycloadditions of Pyrimidine Derivatives to Alkynes. Chemistry - A European Journal, 1999, 5, 3549-3561.	3.3	39
29	[N]Phenylenes: a Novel Class of Cyclohexatrienoid Hydrocarbon. , 2006, , 140-197.		37
30	Novel Structures from Tris(benzocyclobutadieno)cyclohexatriene: Triscyclopropanation and Trisoxacyclopropanation to the First[2.1.2.1.2.1]Hexaannulanes. Angewandte Chemie International Edition in English, 1995, 34, 563-565.	4.4	35
31	Anatomy of a Cyclohexatriene: Chemical Dissection of the π and σ Frame of Angular[3]Phenylene. Angewandte Chemie - International Edition, 2004, 43, 3711-3715.	13.8	35
32	Electron-Reservoir Complexes[FelCp(arene)] as Selective Initiators for a Novel Electron Transfer Chain Catalyzed Reaction: General Synthesis of Fulvalene-Bridged Homo- and Heterodinuclear Zwitterions. Angewandte Chemie International Edition in English, 1994, 33, 661-663.	4.4	33
33	Cobalt Mediated[2+ 2+ 2]-Cycloadditions: Stereospecific Intramolecular Reactions of Enediynes to Tricyclic Dienes Bearing Angular Methyl Groups. Angewandte Chemie International Edition in English, 1981, 20, 802-803.	4.4	32
34	Cyclobutadiene-Metal Complexes as Potential Intermediates in Alkyne Metathesis: Flash Vacuum Pyrolysis of Substituted β -Cyclobutadiene- γ -cyclopentadienyl-cobalt Complexes. Angewandte Chemie International Edition in English, 1979, 18, 409-411.	4.4	29
35	Structure, Deformation Electron Densities, Photoelectron Spectra, and Reactivity of 3,4-Dihydro-1H-cyclobuta[a]cyclopropa[d]benzene. Angewandte Chemie International Edition in English, 1989, 28, 206-208.	4.4	29
36	Leichte Hydrierung des zentralen Cyclohexatriens von Tris(benzocyclobutadieno)benzol: Synthese und Struktur sowie thermische und photochemische Isomerisierung von all-cis-Tris(benzocyclobuta)cyclohexan. Angewandte Chemie, 1990, 102, 1200-1202.	2.0	26

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37	Cobalt-Mediated [2+ 2+ 2] Cycloadditions of Alkynes to the Imidazole 4,5-Double Bond. First Synthesis of the 3a, 7a-Dihydrobenzimidazole Nucleus and Its Preliminary Chemistry Including a Novel Quinoline Construction. <i>Angewandte Chemie International Edition in English</i> , 1987, 26, 1035-1037.	4.4	25
38	Synthesis of the First Linear (o-Phenylene)naphthalenes; a New Class of Benzenoid Aromatics. <i>Angewandte Chemie International Edition in English</i> , 1985, 24, 114-115.	4.4	23
39	2,3,9,10-Tetrakis(trimethylsilyl)[5]phenylen durch regiospezifische cobaltkatalysierte Cocyclisierung von 1,6-Bis(triisopropylsilyl)-1,3,5-hexatriin. <i>Angewandte Chemie</i> , 1987, 99, 1276-1277.	2.0	23
40	On the Way to Ligating Oligocyclopentadienyls: Synthesis and Preliminary Reactions of the Two Isomeric Tercyclopentadienyls and Their Transition Metal Complexes. <i>Angewandte Chemie International Edition in English</i> , 1990, 29, 549-552.	4.4	23
41	Cyclopentadienone Complexes as Synthons: Ring- and Regiospecific Nucleophilic Additions to Cobaltocenium Salts? Synthesis of Substituted Cyclopentadienes and Cyclopentenones. <i>Angewandte Chemie International Edition in English</i> , 1982, 21, 617-618.	4.4	22
42	Unique Reactivity of Heterodinuclear Pentacarbonyl(fulvalene)molybdenumruthenium with Alkynes: Fluxionality, Rearrangements, Structures, and First Reversible Conversion of a "Side-on" to a Semi-Bridging Alkenylidene Ligand. <i>Angewandte Chemie International Edition in English</i> , 1991, 30, 1463-1465.	4.4	21
43	C_3 -symmetrisches Hexakis(trimethylsilyl)[7]phenylen [Tris(biphenylenocyclobutadien)-cyclohexatrien] - ein polycyclischer, benzoider Kohlenwasserstoff mit leicht gekrümmter Struktur. <i>Angewandte Chemie</i> , 1995, 107, 1630-1633.	2.0	21
44	Formal Insertion of the HCO? Fragment into a Trinuclear Cluster Metal-Carbyne Bond: Synthesis, Structure and Reactivity of Cluster-bound Ethynol. <i>Angewandte Chemie International Edition in English</i> , 1986, 25, 929-931.	4.4	20
45	Cyclobutadien-Metall-Komplexe als potentielle Zwischenstufen der Alkin-Metathese: Blitzthermolyse substituierter C_4 -Cyclobutadien- C_5 -Cyclopentadienyl)cobalt-Komplexe. <i>Angewandte Chemie</i> , 1979, 91, 439-440.	2.0	19
46	5,6,11,12,17,18-Hexadehydro-1,4,7,10,13,16-hexaethinyltribenzo[a,e,i]cyclododecen: Synthese und CpCo-katalysierte Cycloisomerisierung zu den ersten superdelokalisierten Oligophenylenen. <i>Angewandte Chemie</i> , 1997, 109, 2194-2199.	2.0	19
47	First Case of Interannular, Possibly Electronically Transmitted, Asymmetric Induction in an Organometallic Compound. <i>Angewandte Chemie International Edition in English</i> , 1988, 27, 553-555.	4.4	18
48	Chemo- and Stereoselective Cobalt-Mediated [2+ 2+ 2] Cycloaddition of Alkynes with Uracil Derivatives. A Novel Synthetic Entry to Modified Nucleosides. <i>Angewandte Chemie International Edition in English</i> , 1991, 30, 993-994.	4.4	18
49	Tetraalkynylmethanes: Synthesis of Diethynyl-dipropargyl- and Tetrapropargylmethane. <i>Angewandte Chemie International Edition in English</i> , 1992, 31, 1648-1651.	4.4	18
50	Auf dem Weg zu Oligocyclopentadienyl-Liganden: Synthese und erste Reaktionen der beiden isomeren Tercyclopentadienyle und ihrer Übergangsmetallkomplexe. <i>Angewandte Chemie</i> , 1990, 102, 589-592.	2.0	17
51	Cyclopentadien-Komplexe als Synthesebausteine: Ring- und regiospezifische nucleophile Addition an Cobaltocenium-Salze - Synthese substituierter Cyclopentadiene und Cyclopentenone. <i>Angewandte Chemie</i> , 1982, 94, 642-643.	2.0	16
52	Dinuclear tungsten and molybdenum complexes with fulvalene ligands: Assignment of their 1H and ^{13}C NMR spectra by one-dimensional heteronuclear noe difference spectroscopy. <i>Magnetic Resonance in Chemistry</i> , 1986, 24, 709-712.	1.9	13
53	Deoxygenation of allylic carbinolamides and related alcohols by acidic sodium cyanoborohydride: Scope and limitations. <i>Journal of Heterocyclic Chemistry</i> , 1982, 19, 701-702.	2.6	12
54	Toward Antikekulene: Angular 1,2-Di-, 2,3-Di-, and 1,2,15,16-Tetrachloro[6]phenylene. <i>Synlett</i> , 2014, 25, 2429-2433.	1.8	12

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55	Struktur, Deformationselektronendichte, Photoelektronenspektrum und Reaktivität von 3,4-Dihydro-1H-cyclobuta[1,2-c]cyclopropa[1,2-d]benzol. <i>Angewandte Chemie</i> , 1989, 101, 209-211.	2.0	11
56	Neue Derivate von Tris(benzocyclobutadien)-cyclohexatrien: durch Triscyclopropanierung und Trisepoxidierung zu den ersten [2.1.2.1.2.1]Hexaannulenen. <i>Angewandte Chemie</i> , 1995, 107, 601-603.	2.0	11
57	Site-selective reversible Diels-Alder reaction between a biphenylene-based polyarene and a semiconductor surface. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 11037-11046.	2.8	11
58	On the Nature of Nonplanarity in the [N]Phenylenes. , 1999, 5, 3399.		11
59	3,4-Bis(trimethylsilyl)benzocyclobutene-Synthesis by Acetylene Cotrimerization and Conversion into 1,2-Dihydrocyclobuta[1,2-c]benzyne. <i>Angewandte Chemie International Edition in English</i> , 1977, 16, 399-400.	4.4	10
60	Formale Insertion des HCO-S-Fragments in die Metall-Methylidin-Bindung eines dreikernigen Clusters: Synthese, Struktur und Reaktivität von Cluster-gebundenem Ethinol. <i>Angewandte Chemie</i> , 1986, 98, 919-921.	2.0	10
61	Elektronenreservoirkomplexe [Fe-Cp(Aren)] als selektive Initiatoren für eine neue Elektrokatalysereaktion: Synthese fulvalenverbundener homo- und heterozweikerniger Zwitterionen. <i>Angewandte Chemie</i> , 1994, 106, 715-717.	2.0	10
62	Metallierte Tetra- und Penta(cyclopentadienyl)-cyclopentadienyle: Synthese durch Pd-katalysierte Mehrfachcyclopentadienylierung. <i>Angewandte Chemie</i> , 1996, 108, 1100-1102.	2.0	10
63	Struktur und Reaktivität von 2,3,7,8-Tetrakis(trimethylsilyl)terphenylen, einem neuen, linearen Multiphenylen. <i>Angewandte Chemie</i> , 1983, 95, 1001-1002.	2.0	10
64	Nitroalkynes: A Unique Class of Energetic Materials. <i>Synthesis</i> , 2014, 46, 2383-2412.	2.3	10
65	Cobalt-Mediated [2+2+2] Cycloadditions of Alkynes to Benzo[b]furans and Benzo[b]thiophenes: A Potential Route toward Morphanoids. <i>Synthesis</i> , 2018, 50, 1053-1089.	2.3	10
66	Synthese der ersten linearen (Phenyl)naphthaline; eine neue Klasse benzoider Arene. <i>Angewandte Chemie</i> , 1985, 97, 120-121.	2.0	9
67	Tetraalkynylmethane: Synthese von Diethynyldipropargyl- und Terpropargylmethan. <i>Angewandte Chemie</i> , 1992, 104, 1645-1648.	2.0	9
68	Thermische Umwandlung von 1,5,9-Triinen in Arene - [2 + 2 + 2]-Cycloaddition oder sigmatrope Umlagerung?. <i>Angewandte Chemie</i> , 1982, 94, 712-712.	2.0	9
69	Photo-oxidation of 2,3,7,8-tetrakis(trimethylsilyl)benzo[3,4]cyclobuta[1,2-b]-biphenylene in the presence of oxygen: unusual cleavage of a benzene ring to generate an alkyne unit. <i>Journal of the Chemical Society Chemical Communications</i> , 1986, , 281.	2.0	8
70	Cobalt-vermittelte [2 + 2 + 2]-Cycloadditionen: Stereospezifische intramolekulare Reaktionen von Endiinen zu Tricyclodiennen mit angularen Methylgruppen. <i>Angewandte Chemie</i> , 1981, 93, 801-803.	2.0	7
71	(1-6-[7]Heliphene)tricarboxylchromium via an Optimized Preparation of [7]Heliphene. <i>Synthesis</i> , 2015, 47, 2038-2054.	2.3	7
72	1, 2, 4, 5-Tetrahydro-1,2-dicyclobuta[1,2-b], [1,2-e]pyridin. <i>Angewandte Chemie</i> , 1979, 91, 440-441.	2.0	6

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73	The Structure and Reactivity of 2,3,7,8-Tetrakis(trimethylsilyl)terphenylene Novel Linear Multiphenylene. <i>Angewandte Chemie International Edition in English</i> , 1983, 22, 994-996.	4.4	6
74	The Thermal Conversion of 1, 5, 9-Triynes into Arenes: [2 + 2 + 2]-Cycloadditions or Sigmatropic Rearrangements?. <i>Angewandte Chemie International Edition in English</i> , 1982, 21, 685-686.	4.4	5
75	Phenylated Benzenotetraphenes (Dibenzanthracenes) by Nickel-Catalyzed Diphenylacetylene Cycloadditions to Linear [3]Phenylenes. <i>Synthesis</i> , 2013, 45, 2469-2473.	2.3	5
76	Cobalt-Mediated Reactions of Oxazoles and Thiazoles with Alkynes. <i>Synthesis</i> , 2015, 47, 3412-3422.	2.3	5
77	An efficient synthesis of ethyne-1- ¹³ C. <i>Journal of Labelled Compounds and Radiopharmaceuticals</i> , 1983, 20, 257-267.	1.0	4
78	Erstes Beispiel einer interanularen, möglicherweise elektronisch übertragenen asymmetrischen Induktion in einer Organometallverbindung. <i>Angewandte Chemie</i> , 1988, 100, 592-594.	2.0	4
79	Cyclopentadienone Complexes as Five Membered Ring Synthons: Ring- and Regiospecific Nucleophilic Additions to Cobaltocenium Salts and Elaboration to Substituted Cyclopentadienes and Cyclopentenones. <i>Angewandte Chemie International Edition in English</i> , 1982, 21, 1360-1372.	4.4	3
80	The Thermal Conversion of 1, 5, 9-Triynes to Aromatic Compounds: [2+2+2] Cycloadditions or Sigmatropic Rearrangements?. <i>Angewandte Chemie International Edition in English</i> , 1982, 21, 1545-1555.	4.4	3
81	Nickel-Catalyzed Reduction of Carbon Monoxide by Hexamethyldisilane: a New Reaction Leading to a Novel Synthesis of Siloxanes. <i>Angewandte Chemie International Edition in English</i> , 1984, 23, 460-461.	4.4	3
82	Stoichiometric and Catalytic (1-5-Cyclopentadienyl)cobalt-Mediated Cycloisomerizations of Ene-Yne-Ene Type Allyl Propargyl Ethers. <i>Synthesis</i> , 2020, 52, 399-416.	2.3	3
83	Oligoether-Substituted Derivatives of Carbon-Rich 1,4,7,10,13,16-Hexaethynyltribenzo[a,e,i]cyclododeca-5,11,17-triyne (C ₃₆ H ₁₂) and 1,4,9,12-Tetrakis(ethynyl)dibenzo[a,g]cyclododeca-5,7,13,15-tetrayne (C ₂₈ H ₈): Potential Precursors to the Circular [6]Phenylene (Antirekule™) Frame. <i>Synthesis</i> , 2020, 52, 1287-1300.	2.3	3
84	On the Nature of Nonplanarity in the [N]Phenylenes. , 1999, 5, 3399.		3
85	1,2,4,5-Tetrahydrocyclobuta[b,e]pyridine. <i>Angewandte Chemie International Edition in English</i> , 1979, 18, 411-411.	4.4	2
86	Nickel-katalysierte Reduktion von Kohlenmonoxid mit Hexamethyldisilan: eine neuartige Synthese von Siloxanen. <i>Angewandte Chemie</i> , 1984, 96, 449-450.	2.0	2
87	The Quest for Double Vicinal C-H Bond Activation on the (1-5-1-5-Fulvalene)diiridium Platform: Syntheses and Structures of (1-5-1-5-Fulvalene)Ir ₂ (ortho-1/4-C ₆ H ₄)(CO) ₂ (Ir-Ir) and Related Complexes. <i>Synthesis</i> , 2019, 51, 2409-2429.	2.3	2
88	The Trajectory of the (1-5-Cyclopentadienyl)cobalt-Mediated Cycloisomerization of Ene-Yne-Ene-Type Allyl Propargylic Ethers to Furans: A DFT Appraisal. <i>Synthesis</i> , 2021, 53, 4279-4289.	2.3	2
89	Imaging structural transitions in organometallic molecules on Ag(100) for solar thermal energy storage. <i>Journal of the Korean Physical Society</i> , 2017, 70, 586-590.	0.7	1
90	Inter- and Intramolecular [2+2+2] Cycloaddition of Alkyne Triple Bonds to the Carbonyl Function of Aldehydes and Ketones Enabled by 1-5-Cyclopentadienylcobalt(L) (L=). <i>Synthesis</i> , 2021, 53, 699-712.	2.3	1

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91	A Novel Phenylene Topology: Total Syntheses of Zigzag [4]- and [5]Phenylene. <i>Angewandte Chemie - International Edition</i> , 1999, 38, 800-804.	13.8	1
92	Bis(η^5 -cyclopentadienyl)[η^4 -(4b,5,5a- η^3 :9b,10,10a- η^3)-2,3,7,8-tetrakis(trimethylsilyl)benzo[3,4]cyclobuta[1,2-b]biphenylene]-syn-dicobalt(II) (Co μ -Co), a Dinuclear δ -Complex of the Linear [3]Phenylene Frame. <i>Synlett</i> , 0, , .	1.8	0