Pierluigi Barbaro

List of Publications by Year
in descending order

100 papers	4,203 citations	71097 41 h-index	128286 60 g-index
110 all docs	110 docs citations	110 times ranked	4294 citing authors

#	Article	IF	Citations
1	Ion Exchange Resins: Catalyst Recovery and Recycle. Chemical Reviews, 2009, 109, 515-529.	47.7	292
2	Progress in stereoselective catalysis by metal complexes with chiral ferrocenyl phosphines. Coordination Chemistry Reviews, 2004, 248, 2131-2150.	18.8	223
3	Environmentally Friendly Synthesis of Î³-Valerolactone by Direct Catalytic Conversion of Renewable Sources. ACS Catalysis, 2015, 5, 1882-1894.	11.2	182
4	Enantioselective Hydrogenation of 2-Methylquinoxaline to (âˆ’)-(2S)-2-Methyl-1,2,3,4-tetrahydroquinoxaline by Iridium Catalysis. Organometallics, 1998, 17, 3308-3310.	2.3	150
5	Synthetic models for catechol 1,2-dioxygenases. Interception of a metal catecholate-dioxygen adduct. Journal of the American Chemical Society, 1991, 113, 3181-3183.	13.7	90
6	Chiral P,S-Ligands Based on Î²-d-Thioglucose Tetraacetate. Palladium(II) Complexes and Allylic Alkylation. Organometallics, 1996, 15, 1879-1888.	2.3	90
7	1,3-Diphenylallyl Complexes of Palladium(II): NMR, x-ray, and Catalytic Studies. Organometallics, 1995, 14, 5160-5170.	2.3	87
8	Biomass-derived chemical substitutes for bisphenol A: recent advancements in catalytic synthesis. Chemical Society Reviews, 2020, 49, 6329-6363.	38.1	87
9	Recent Aspects of Asymmetric Catalysis by Immobilized Chiral Metal Catalysts. Topics in Catalysis, 2002, 19, 17-32.	2.8	85
10	A New Chiral Tridentate Ferrocenyl Ligand. Synthesis and Characterization of Its Palladium(II) and Nickel(II) Complexes. Organometallics, 1995, 14, 3570-3573.	2.3	71
11	Synthesis and Characterization of Ruthenium(II) Complexes Containing Chiral Bis(ferrocenyl)âˆ'P3or âˆ'P2S Ligands. Asymmetric Transfer Hydrogenation of Acetophenone. Organometallics, 1997, 16, 3004-3014.	2.3	70
12	Hydrogenation of Arenes over Silica-Supported Catalysts That Combine a Grafted Rhodium Complex and Palladium Nanoparticles:â€‰ Evidence for Substrate Activation on Rhsingle-siteâˆ'Pdmetal Moieties. Journal of the American Chemical Society, 2006, 128, 7065-7076.	13.7	70
13	Synthesis of New Polydentate Nitrogen Ligands and Their Use in Ethylene Polymerization in Conjunction with Iron(II) and Cobalt(II) Bis-halides and Methylaluminoxane. Organometallics, 2007, 26, 4639-4651.	2.3	69
14	Styrene Cyclopropanation and Ethyl Diazoacetate Dimerization Catalyzed by Ruthenium Complexes Containing Chiral Tridentate Phosphine Ligands. Organometallics, 1999, 18, 1961-1966.	2.3	66
15	Heterogeneous Bifunctional Metal/Acid Catalysts for Selective Chemical Processes. European Journal of Inorganic Chemistry, 2012, 2012, 3807-3823.	2.0	65
16	Activation and Functionalization of White Phosphorus at Rhodium: Experimental and Computational Analysis of the[(triphos)Rh (Î·1:Î·2-P4RRâ€²)]Y Complexes (triphos=MeC(CH2PPh2)3; R=H, Alkyl, Aryl; Râ€²=2) Tj ETQq0 0 0 rgBT /Overlo	3.3	64
17	Regio- and stereoselective dimerization of 1-alkynes catalyzed by an Os(II) complex. Inorganica Chimica Acta, 1994, 220, 5-19.	2.4	62
18	Immobilization of Optically Active Rhodium-Diphosphine Complexes on Porous Silica via Hydrogen Bonding. Advanced Synthesis and Catalysis, 2001, 343, 41-45.	4.3	62

#	Article	IF	Citations
19	Energy efficient continuous production of Î³-valerolactone by bifunctional metal/acid catalysis in one pot. Green Chemistry, 2014, 16, 3434.	9.0	62
20	Transition metal complexes with the C1-symmetric diphosphines (R)-(R)-3-benzyl-2,4-bis(diphenylphosphino)pentane and (R)-(R)-3-benzyl(p-sulphonate)-2,4-bis(diphenylphosphino)pentane sodium salt. Applications to enantioselective catalysis in different phase systems. Journal of Organometallic Chemistry, 2001, 621, 26-33.	1.8	61
21	Hydrolysis of Dinuclear Ruthenium Complexes [{CpRu(PPh3)2}2(Î¼,Î·1:1-L)][CF3SO3]2 (L=P4, P4S3): Simple Access to Metal Complexes of P2H4 and PH2SH. Chemistry - A European Journal, 2007, 13, 6682-6690.	3.3	60
22	Molecular Recognition through H-Bonding in Micelles Formed by Dioctylphosphatidyl Nucleosides. Journal of Physical Chemistry B, 1999, 103, 4916-4922.	2.6	59
23	Continuous Partial Hydrogenation Reactions by Pd@unconventional Bimodal Porous Titania Monolith Catalysts. ACS Catalysis, 2012, 2, 2194-2198.	11.2	58
24	Chemoselective oxidation of 3,5-di-tert-butylcatechol by molecular oxygen. Catalysis by an iridium(III) catecholate through its dioxygen adduct. Inorganic Chemistry, 1992, 31, 1523-1529.	4.0	57
25	Continuousâ€Flow Oxidation of HMF to FDCA by Resinâ€Supported Platinum Catalysts in Neat Water. ChemSusChem, 2019, 12, 2558-2563.	6.8	56
26	Green semi-hydrogenation of alkynes by Pd@borate monolith catalysts under continuous flow. Journal of Catalysis, 2014, 311, 212-220.	6.2	53
27	Dioxygen uptake and transfer by Co(III), Rh(III) and Ir(III) catecholate complexes. Inorganica Chimica Acta, 1992, 198-200, 31-56.	2.4	52
28	Metal Coordination and Hg-C Bond Protonolysis in Organomercury(II) Compounds. Synthesis, Characterization, and Reactivity of the Tetrahedral Complexes [(np3)HgR][(CF3)SO3] {np3 = N(CH2CH2PPh2)3; R = CH3, C2H5, C6H5}. Inorganic Chemistry, 1994, 33, 6163-6170.	4.0	49
29	Facile heterogeneous catalytic hydrogenations of Cî€N and Cî€O bonds in neat water: anchoring of water-soluble metal complexes onto ion-exchange resins. Green Chemistry, 2012, 14, 3211.	9.0	49
30	Continuous-flow processes for the catalytic partial hydrogenation reaction of alkynes. Beilstein Journal of Organic Chemistry, 2017, 13, 734-754.	2.2	49
31	Dioxygen and Carbon Monoxide Uptake by Iridium(I) Complexes Stabilized by Mixed N,P-Donor Ligands. Inorganic Chemistry, 1994, 33, 1622-1630.	4.0	48
32	In situ generation of resin-supported Pd nanoparticles under mild catalytic conditions: a green route to highly efficient, reusable hydrogenation catalysts. Catalysis Science and Technology, 2012, 2, 2279.	4.1	47
33	Hydrogenation of Quinoline by Rhodium Catalysts Modified with the Tripodal Polyphosphine Ligand MeC(CH2PPh2)3. Helvetica Chimica Acta, 2001, 84, 2895-2923.	1.6	46
34	Selective hydrogenation over Pd nanoparticles supported on a pore-flow-through silica monolith microreactor with hierarchical porosity. Dalton Transactions, 2013, 42, 1378-1384.	3.3	45
35	Recycling Asymmetric Hydrogenation Catalysts by Their Immobilization onto Ion-Exchange Resins. Chemistry - A European Journal, 2006, 12, 5666-5675.	3.3	44
36	Controlling the Activation of White Phosphorus: Formation of Phosphorous Acid and Rutheniumâ€Coordinated 1â€Hydroxytriphosphane by Hydrolysis of Doubly Metalated P₄. Angewandte Chemie - International Edition, 2008, 47, 4425-4427.	13.8	44

#	Article	IF	Citations
37	Selective direct conversion of C₅ and C₆ sugars to high added-value chemicals by a bifunctional, single catalytic body. Green Chemistry, 2016, 18, 2935-2940.	9.0	44
38	A Snapshot of P4 Tetrahedron Opening: Rh- and Ir-Mediated Activation of White Phosphorus. Angewandte Chemie - International Edition, 2006, 45, 4182-4185.	13.8	43
39	The tetranuclear trianion [Fe4Te4(SC6H5)4]3-: crystal and molecular structure and magnetic properties. Journal of the American Chemical Society, 1990, 112, 7238-7246.	13.7	42
40	Copolymerization of carbon monoxide with ethene catalyzed by bis-chelated palladium(II) complexes containing diphosphine and dinitrogen ligands. New Journal of Chemistry, 1999, 23, 929-938.	2.8	42
41	Emerging strategies in sustainable fine-chemical synthesis: asymmetric catalysis by metal nanoparticles. Dalton Transactions, 2010, 39, 8391.	3.3	42
42	Thermal and photochemical carbon-hydrogen bond activation reactions at iridium. .pi.-Coordination vs. C-H cleavage of ethene, styrene, and phenylacetylene. Organometallics, 1993, 12, 2505-2514.	2.3	40
43	Assembling ethylene, alkyl, hydride, and carbon monoxide ligands at iridium. Organometallics, 1991, 10, 2227-2238.	2.3	39
44	Dioxomolybdenum(VI) Complexes Stabilized by Polydentate Ligands with NO3, N2O2, and NS2 Donor-Atom Sets. Inorganic Chemistry, 1994, 33, 3180-3186.	4.0	39
45	Preparative, potentiometric and NMR studies of the interaction of beryllium(II) with oxalate and malonate. X-ray structure of K3[Be3(OH)3(O2Câ€"CH2â€"CO2)3]Â·6H2O. Inorganica Chimica Acta, 1997, 262, 187-194.	2.4	39
46	Metal nanoparticles immobilized on ion-exchange resins: A versatile and effective catalyst platform for sustainable chemistry. Chinese Journal of Catalysis, 2015, 36, 1157-1169.	14.0	38
47	Hydrogenation of Indole by Phosphine-Modified Rhodium and Ruthenium Catalysts. Organometallics, 2002, 21, 1430-1437.	2.3	37
48	Hydrodynamic cavitation as an energy efficient process to increase biochar surface area and porosity: A case study. Journal of Cleaner Production, 2019, 210, 159-169.	9.3	37
49	In Situ and Reactor Study of the Enantioselective Hydrogenation of Acetylacetone by Ruthenium Catalysis with the New Chiral Diphosphine Ligand (R)-(R)-3-Benzyl-2,4-bis(diphenylphosphino)pentane. Organometallics, 2000, 19, 2450-2461.	2.3	35
50	The first tridentate phosphine ligand combining planar, phosphorus and carbon chiralityElectronic supplementary information (ESI) available: experimental section. See http://www.rsc.org/suppdata/cc/b2/b208384a/. Chemical Communications, 2002, , 2672-2673.	4.1	33
51	Rhodium-Mediated Functionalization of White Phosphorus:Â A Novel Formation of Câˆ'P Bonds. Organometallics, 1999, 18, 4237-4240.	2.3	31
52	Iodine Activation of Coordinated White Phosphorus: Formation and Transformation of 1,3â€Dihydrideâ€2â€iodidecyclotetraphosphane. Angewandte Chemie - International Edition, 2012, 51, 8628-8631.	13.8	31
53	Synthesis and characterization of chiral bis-ferrocenyl triphosphine Ni(II) and Rh(III) complexes and their use as catalyst precursors for acetalization reactions. Journal of Molecular Catalysis A, 1999, 145, 139-146.	4.8	28
54	Novel chiral ferrocenyl-imino phosphine ligands and their use in palladium catalyzed allylic alkylations. Tetrahedron Letters, 2003, 44, 8279-8283.	1.4	27

#	Article	IF	Citations
55	Nucleophilic addition of phosphines to rhenium allenylidenes. Unprecedented double Pâ€“H bond activation to give an Î·1-P-phospha-1-butadienyl ligand. Dalton Transactions, 2003, , 4121-4131.	3.3	27
56	Green production of polymer-supported PdNPs: application to the environmentally benign catalyzed synthesis of cis-3-hexen-1-ol under flow conditions. Dalton Transactions, 2012, 41, 12666.	3.3	27
57	Sustainable processes for the catalytic synthesis of safer chemical substitutes of N-methyl-2-pyrrolidone. Molecular Catalysis, 2019, 466, 60-69.	2.0	27
58	Valorisation of plastic waste via metal-catalysed depolymerisation. Beilstein Journal of Organic Chemistry, 2021, 17, 589-621.	2.2	27
59	Heterobimetallic Cooperation Mediates the Transformation of White Phosphorus into Zwitterionic <i>catenaâ€‹</i>Phosphonium(+)diphosphenide(âˆ’) Ligands. Angewandte Chemie - International Edition, 2008, 47, 3766-3768.	13.8	26
60	Recycling asymmetric hydrogenation catalysts by their immobilisation onto ion-exchange resinsElectronic supplementary information (ESI) available: Experimental section, 31P{1H} HP NMR spectra, typical EDS surface area spectrum and ESEM images. See http://www.rsc.org/suppdata/dt/b4/b406179a/. Dalton Transactions, 2004, , 1783.	3.3	25
61	Dioxomolybdenum(VI) Complexes with New Enantiomerically Pure Amino Diol Ligands. Inorganic Chemistry, 1996, 35, 3362-3368.	4.0	24
62	Getting a Clue to the Hydrolytic Activation of White Phosphorus: The Generation and Stabilization of P(OH)₂PHPHPH(OH) at Ruthenium Centers. Inorganic Chemistry, 2009, 48, 1091-1096.	4.0	24
63	Synthesis and characterization of the tetraazamacrocycle 4,10-dimethyl-1,4,7,10-tetraazacyclododecane-1,7-diacetic acid (H2Me2DO2A) and of its neutral copper(II) complex [Cu(Me2DO2A)]. A new 64Cu-labeled macrocyclic complex for positron emission tomography imagingâ€Šâ€. Dalton Transactions RSC, 2000, , 2393-2401.	2.3	23
64	Unconventional Pd@Sulfonated Silica Monoliths Catalysts for Selective Partial Hydrogenation Reactions under Continuous Flow. ChemCatChem, 2017, 9, 3245-3258.	3.7	22
65	Synthesis, characterization, protonation studies and X-ray crystal structure of ReH5(PPh3)2(PTA) (PTA=1,3,5-triaza-7-phosphaadamantane). Journal of Organometallic Chemistry, 2006, 691, 629-637.	1.8	21
66	Chiral Rh phosphineâ€“phosphite catalysts immobilized on ionic resins for the enantioselective hydrogenation of olefins in water. Green Chemistry, 2015, 17, 3826-3836.	9.0	21
67	Benzene Hydrogenation by Silica-Supported Catalysts Made of Palladium Nanoparticles and Electrostatically Immobilized Rhodium Single Sites. Organometallics, 2008, 27, 2809-2824.	2.3	20
68	Lowâ€Temperature Continuousâ€Flow Dehydration of Xylose Over Waterâ€Tolerant Niobiaâ€“Titania Heterogeneous Catalysts. ChemSusChem, 2018, 11, 3649-3660.	6.8	20
69	Ruthenium(II) Complexes with Triphosphane Ligands Combining Planar, Phosphorus, and Carbon Chirality: Application to Asymmetric Reduction of Trifluoroacetophenone. European Journal of Inorganic Chemistry, 2003, 2003, 4166-4172.	2.0	19
70	Metal Nanoparticles Supported on Perfluorinated Superacid Polymers: A Family of Bifunctional Catalysts for the Selective, Oneâ€Pot Conversion of Vegetable Substrates in Water. ChemCatChem, 2017, 9, 4256-4267.	3.7	18
71	Synthesis, characterisation and molecular structure of Re(iii) 2-oxacyclocarbenes stabilised by a benzoyldiazenido ligand. Dalton Transactions, 2004, , 713.	3.3	17
72	A mild route to solid-supported rhodium nanoparticle catalysts and their application to the selective hydrogenation reaction of substituted arenes. Catalysis Science and Technology, 2015, 5, 3762-3772.	4.1	17

#	Article	IF	Citations
73	PdNP@Titanate Nanotubes as Effective Catalyst for Continuousâ€Flow Partial Hydrogenation Reactions. ChemCatChem, 2016, 8, 1001-1011.	3.7	16
74	Valence localization in [M(triphos)(3,5-di-tert-butyl-catecholate)]+ ions (M = Co, Rh or Ir) probed by resonance Raman spectroscopy. Inorganica Chimica Acta, 1996, 252, 157-166.	2.4	15
75	Partial hydrogenation reactions over Pd-containing hybrid inorganic/polymeric catalytic membranes. Applied Catalysis A: General, 2013, 459, 81-88.	4.3	15
76	NanoSelect Precious Metal Catalysts and their Use in Asymmetric Heterogeneous Catalysis. ChemCatChem, 2014, 6, 2904-2909.	3.7	15
77	New enantiomerically pure aminoalcohols from (R)-Î±-methylbenzylamine and cyclohexene oxide. Tetrahedron: Asymmetry, 1996, 7, 843-850.	1.8	13
78	Dynamic Behaviour of the [(Triphos)Rh(Î·¹:Î·²â€P₄RRâ€²)]^{<i>n</i>+} Complexes [Triphos = MeC(CH₂PPh₂)₃; R = H, Alkyl, Aryl; Râ€² = Lone Pair, H, Me; <i>n</i> = 0, 1]: NMR and Computational Studies. European Journal of Inorganic Chemistry, 2008, 2008, 1392-1399.	2.0	13
79	Collective headgroup conformational transition in twisted micellar superstructures. Soft Matter, 2008, 4, 1102.	2.7	13
80	Continuous flow synthesis of Rh and Pd nanoparticles onto ion-exchange borate monoliths: application to selective catalytic hydrogenation of unsaturated carbonyl compounds under flow conditions. Catalysis Science and Technology, 2014, 4, 3835-3839.	4.1	13
81	Interaction of methylmercury(II) with the bifunctional ligand o-diphenylphosphinobenzoate, dpb. Synthesis and characterization of [(dpb)HgMe] and [(dpbo)HgMe], dpbo=o-diphenylphosphinoxidebenzoate. Journal of Organometallic Chemistry, 1998, 555, 255-262.	1.8	12
82	Complexes of Rhodium(I) and Iridium(I) with the Chiral Tridentate Phosphane Pigiphos: Structure and Reactivity Studies. European Journal of Inorganic Chemistry, 2003, 2003, 601-609.	2.0	11
83	Continuous flow hydrogenation reactions by Pd catalysts onto hybrid ZrO2/PVA materials. Applied Catalysis A: General, 2014, 488, 58-65.	4.3	11
84	Beryllium(II) Complexes of the KlÃui Tripodal Ligand Cyclopentadienyltris(diethylphosphito-P)cobaltate(âˆ’). Inorganic Chemistry, 2001, 40, 2725-2729.	4.0	10
85	Adducts of Cyclotriphosphorus Complexes with Cyclopentadienyl Ruthenium Fragments: Synthesis, Solid-State Structure and Solution Behaviour. European Journal of Inorganic Chemistry, 2005, 2005, 1360-1368.	2.0	10
86	Selective, aerobic oxidation reaction of alcohols by hybrid Pd/ZrO 2 /PVA catalytic membranes. Applied Catalysis A: General, 2017, 530, 217-225.	4.3	10
87	Sustainable Catalytic Synthesis for a Bioâ€Based Alternative to the Reachâ€Restricted <i>N</i>â€Methylâ€2â€Pyrrolidone. Advanced Sustainable Systems, 2020, 4, 1900117.	5.3	10
88	Strong Cation Exchange with Innocence: Synthesis and Characterization of Borate Containing Resins and Macroporous Monoliths. Macromolecules, 2013, 46, 5423-5433.	4.8	8
89	Continuous flow catalytic partial hydrogenation of hydrocarbons and alcohols over hybrid Pd/ZrO2/PVA wall reactors. Applied Catalysis A: General, 2018, 558, 34-43.	4.3	8
90	Adduct of two 1,8-naphthyridine molecules (one protonated) with tetrachloroferrate (III). Acta Crystallographica Section C: Crystal Structure Communications, 1992, 48, 625-627.	0.4	7

#	Article	IF	Citations
91	Progress in Understanding of the Interactions between Functionalized Polyolefins and Organoâ€‹<scp>L</scp>ayered Double Hydroxides. Macromolecular Reaction Engineering, 2014, 8, 122-133.	1.5	6
92	Large-Scale Synthesis of Chiral Ferrocenyl Imino-Phosphines. Synthesis, 2005, 2005, 2445-2448.	2.3	5
93	Enantioselective hydrogenation of prochiral substrates in catalytic membrane reactors. Catalysis Science and Technology, 2011, 1, 226.	4.1	5
94	Liquid-phase synthesis of methyl isobutyl ketone over bifunctional heterogeneous catalysts comprising cross-linked perfluorinated sulfonic acid Aquivion polymers and supported Pd nanoparticles. Applied Catalysis A: General, 2021, 610, 117957.	4.3	5
95	Chloro[o-(diphenylphosphino)benzaldehyde]{N-[o-(diphenylphosphino)benzylidene]ethylamine}(tetrachloro-o-catecholato)iridium(III). Acta Crystallographica Section C: Crystal Structure Communications, 1994, 50, 1414-1417.	0.4	3
96	Synthesis, properties and characterization of the trinuclear clusters [Co3(Âµ-SR)6(PEt3)3]X (R = Me or) Tj ETQq0 0 0 rgBT /Overlock 10	1.1	3
97	Synthetic Approaches to New Diastereomerically Pure Ferrocenyl TriphosphineÂs Combining Phosphorus, Planar, and Carbon Chirality. Synthesis, 2004, 2004, 345-352.	2.3	3
98	NMR studies on the novel heterobimetallic complexes [M(dppm)(Ph2PCH2PPh2PPPP) {Pt(PPh3)2}]OTf (M) Tj ETQq0 0 0 rgBT /Overlock 2008, 46, S120-S125.	1.9	3
99	Novel Chiral Ferrocenyl-imino Phosphine Ligands and Their Use in Palladium-Catalyzed Allylic Alkylations.. ChemInform, 2004, 35, no.	0.0	0
100	Asymmetric Alkylation or Amination of Allylic Esters. , 2005, , 35-57.		0