Pierluigi Barbaro

List of Publications by Citations

103 papers	3,601 citations	37 h-index	55 g-index
110 ext. papers	3,847 ext. citations	6.8 avg, IF	5.4 L-index

#	Paper	IF	Citations
103	Ion exchange resins: catalyst recovery and recycle. *Chemical Reviews*, **2009**, 109, 515-29	68.1	257
102	Progress in stereoselective catalysis by metal complexes with chiral ferrocenyl phosphines. *Coordination Chemistry Reviews*, **2004**, 248, 2131-2150	23.2	202
101	Environmentally Friendly Synthesis of δ-Valerolactone by Direct Catalytic Conversion of Renewable Sources. *ACS Catalysis*, **2015**, 5, 1882-1894	13.1	147
100	Enantioselective Hydrogenation of 2-Methylquinoxaline to (R)-(2S)-2-Methyl-1,2,3,4-tetrahydroquinoxaline by Iridium Catalysis. *Organometallics*, **1998**, 17, 3308-3310	3.8	134
99	Synthetic models for catechol 1,2-dioxygenases. Interception of a metal catecholate-dioxygen adduct. *Journal of the American Chemical Society*, **1991**, 113, 3181-3183	16.4	81
98	Chiral P,S-Ligands Based on β-D-Thioglucose Tetraacetate. Palladium(II) Complexes and Allylic Alkylation. *Organometallics*, **1996**, 15, 1879-1888	3.8	80
97	1,3-Diphenylallyl Complexes of Palladium(II): NMR, x-ray, and Catalytic Studies. *Organometallics*, **1995**, 14, 5160-5170	3.8	77
96	Recent Aspects of Asymmetric Catalysis by Immobilized Chiral Metal Catalysts. *Topics in Catalysis*, **2002**, 19, 17-32	2.3	71
95	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	3.8	65
94	Hydrogenation of arenes over silica-supported catalysts that combine a grafted rhodium complex and palladium nanoparticles: evidence for substrate activation on Rh(single-site)-Pd(metal) moieties. *Journal of the American Chemical Society*, **2006**, 128, 7065-76	16.4	62
93	Activation and functionalization of white phosphorus at rhodium: experimental and computational analysis of the [(triphos)Rh (eta1:eta2-P4RR')]Y complexes (triphos=MeC(CH2PPh2)3; R=H, Alkyl, Aryl; R'=2 electrons, H, Me). *Chemistry - A European Journal*, **2003**, 9, 5196-210	4.8	60
92	Hydrolysis of dinuclear ruthenium complexes [{CpRu(PPh3)2}2(micro,eta(1:1)-L)][CF3SO3]2 (L=P4, P4S3): simple access to metal complexes of P2H4 and PH2SH. *Chemistry - A European Journal*, **2007**, 13, 6682-90	4.8	58
91	A New Chiral Tridentate Ferrocenyl Ligand. Synthesis and Characterization of Its Palladium(II) and Nickel(II) Complexes. *Organometallics*, **1995**, 14, 3570-3573	3.8	58
90	Regio- and stereoselective dimerization of 1-alkynes catalyzed by an Os(II) complex. *Inorganica Chimica Acta*, **1994**, 220, 5-19	2.7	58
89	Heterogeneous Bifunctional Metal/Acid Catalysts for Selective Chemical Processes. *European Journal of Inorganic Chemistry*, **2012**, 2012, 3807-3823	2.3	57
88	Synthesis and Characterization of Ruthenium(II) Complexes Containing Chiral Bis(ferrocenyl)P3 or P2S Ligands. Asymmetric Transfer Hydrogenation of Acetophenone. *Organometallics*, **1997**, 16, 3004-3014	3.8	57
87	Molecular Recognition through H-Bonding in Micelles Formed by Dioctylphosphatidyl Nucleosides. *Journal of Physical Chemistry B*, **1999**, 103, 4916-4922	3.4	57

86	Styrene Cyclopropanation and Ethyl Diazoacetate Dimerization Catalyzed by Ruthenium Complexes Containing Chiral Tridentate Phosphine Ligands. *Organometallics*, **1999**, 18, 1961-1966	3.8	56
85	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**,	2.3	53
84	Energy efficient continuous production of Ɛ-valerolactone by bifunctional metal/acid catalysis in one pot. *Green Chemistry*, **2014**, 16, 3434	10	52
83	Continuous Partial Hydrogenation Reactions by Bimodal Porous Titania Monolith Catalysts. *ACS Catalysis*, **2012**, 2, 2194-2198	13.1	51
82	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	5.1	51
81	Dioxygen uptake and transfer by Co(III), Rh(III) and Ir(III) catecholate complexes. *Inorganica Chimica Acta*, **1992**, 198-200, 31-56	2.7	48
80	Immobilization of Optically Active Rhodium-Diphosphine Complexes on Porous Silica via Hydrogen Bonding. *Advanced Synthesis and Catalysis*, **2001**, 343, 41-45	5.6	47
79	Green semi-hydrogenation of alkynes by Pd@borate monolith catalysts under continuous flow. *Journal of Catalysis*, **2014**, 311, 212-220	7.3	46
78	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	5.1	45
77	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	5.5	43
76	Selective hydrogenation over Pd nanoparticles supported on a pore-flow-through silica monolith microreactor with hierarchical porosity. *Dalton Transactions*, **2013**, 42, 1378-84	4.3	42
75	Controlling the activation of white phosphorus: formation of phosphorous acid and ruthenium-coordinated 1-hydroxytriphosphane by hydrolysis of doubly metalated P4. *Angewandte Chemie - International Edition*, **2008**, 47, 4425-7	16.4	42
74	Dioxygen and Carbon Monoxide Uptake by Iridium(I) Complexes Stabilized by Mixed N,P-Donor Ligands. *Inorganic Chemistry*, **1994**, 33, 1622-1630	5.1	42
73	A snapshot of P4 tetrahedron opening: Rh- and Ir-mediated activation of white phosphorus. *Angewandte Chemie - International Edition*, **2006**, 45, 4182-5	16.4	41
72	Facile heterogeneous catalytic hydrogenations of CN and CO bonds in neat water: anchoring of water-soluble metal complexes onto ion-exchange resins. *Green Chemistry*, **2012**, 14, 3211	10	40
71	Recycling asymmetric hydrogenation catalysts by their immobilization onto ion-exchange resins. *Chemistry - A European Journal*, **2006**, 12, 5666-75	4.8	40
70	Hydrogenation of Quinoline by Rhodium Catalysts Modified with the Tripodal Polyphosphine Ligand MeC(CH2PPh2)3. *Helvetica Chimica Acta*, **2001**, 84, 2895-2923	2	40
69	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	3.6	40

68	Preparative, potentiometric and NMR studies of the interaction of beryllium(II) with oxalate and malonate. X-ray structure of K3[Be3(OH)3(O2CCH2CO2)3]·6H2O. *Inorganica Chimica Acta*, **1997**, 262, 187-194	2.7	39
67	Continuous-flow processes for the catalytic partial hydrogenation reaction of alkynes. *Beilstein Journal of Organic Chemistry*, **2017**, 13, 734-754	2.5	37
66	Emerging strategies in sustainable fine-chemical synthesis: asymmetric catalysis by metal nanoparticles. *Dalton Transactions*, **2010**, 39, 8391-402	4.3	37
65	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	3.8	36
64	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	10	35
63	Hydrogenation of Indole by Phosphine-Modified Rhodium and Ruthenium Catalysts. *Organometallics*, **2002**, 21, 1430-1437	3.8	35
62	The tetranuclear trianion [Fe4Te4(SC6H5)4]3-: crystal and molecular structure and magnetic properties. *Journal of the American Chemical Society*, **1990**, 112, 7238-7246	16.4	34
61	Continuous-Flow Oxidation of HMF to FDCA by Resin-Supported Platinum Catalysts in Neat Water. *ChemSusChem*, **2019**, 12, 2558-2563	8.3	33
60	Assembling ethylene, alkyl, hydride, and carbon monoxide ligands at iridium. *Organometallics*, **1991**, 10, 2227-2238	3.8	33
59	Metal nanoparticles immobilized on ion-exchange resins: A versatile and effective catalyst platform for sustainable chemistry. *Chinese Journal of Catalysis*, **2015**, 36, 1157-1169	11.3	31
58	Dioxomolybdenum(VI) Complexes Stabilized by Polydentate Ligands with NO3, N2O2, and NS2 Donor-Atom Sets. *Inorganic Chemistry*, **1994**, 33, 3180-3186	5.1	30
57	Biomass-derived chemical substitutes for bisphenol A: recent advancements in catalytic synthesis. *Chemical Society Reviews*, **2020**, 49, 6329-6363	58.5	30
56	Iodine activation of coordinated white phosphorus: formation and transformation of 1,3-dihydride-2-iodidecyclotetraphosphane. *Angewandte Chemie - International Edition*, **2012**, 51, 8628-31	16.4	29
55	The first tridentate phosphine ligand combining planar, phosphorus and carbon chirality. *Chemical Communications*, **2002**, 2672-3	5.8	28
54	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	3.8	28
53	Rhodium-Mediated Functionalization of White Phosphorus: A Novel Formation of C−P Bonds. *Organometallics*, **1999**, 18, 4237-4240	3.8	28
52	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, 12666-9	4.3	26
51	Nucleophilic addition of phosphines to rhenium allenylidenes. Unprecedented double P−H bond activation to give an 1-P-phospha-1-butadienyl ligand. *Dalton Transactions*, **2003**, 4121-4131	4.3	26

50	Heterobimetallic cooperation mediates the transformation of white phosphorus into zwitterionic catena-phosphonium(+)diphosphenide(-) ligands. *Angewandte Chemie - International Edition*, **2008**, 47, 3766-8	16.4	24
49	Recycling asymmetric hydrogenation catalysts by their immobilisation onto ion-exchange resins. *Dalton Transactions*, **2004**, 1783-4	4.3	24
48	Novel chiral ferrocenyl-imino phosphine ligands and their use in palladium catalyzed allylic alkylations. *Tetrahedron Letters*, **2003**, 44, 8279-8283	2	24
47	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	10.3	23
46	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, 1091-6	5.1	22
45	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		22
44	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 imaging. *Dalton Transactions RSC*, **2000**, 2393-2401		21
43	Benzene Hydrogenation by Silica-Supported Catalysts Made of Palladium Nanoparticles and Electrostatically Immobilized Rhodium Single Sites. *Organometallics*, **2008**, 27, 2809-2824	3.8	20
42	Chiral Rh phosphine–phosphite catalysts immobilized on ionic resins for the enantioselective hydrogenation of olefins in water. *Green Chemistry*, **2015**, 17, 3826-3836	10	19
41	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	2.3	19
40	Unconventional Pd@Sulfonated Silica Monoliths Catalysts for Selective Partial Hydrogenation Reactions under Continuous Flow. *ChemCatChem*, **2017**, 9, 3245-3258	5.2	18
39	Dioxomolybdenum(VI) Complexes with New Enantiomerically Pure Amino Diol Ligands. *Inorganic Chemistry*, **1996**, 35, 3362-3368	5.1	18
38	Low-Temperature Continuous-Flow Dehydration of Xylose Over Water-Tolerant Niobia-Titania Heterogeneous Catalysts. *ChemSusChem*, **2018**, 11, 3649-3660	8.3	17
37	A Snapshot of P4 Tetrahedron Opening: Rh- and Ir-Mediated Activation of White Phosphorus. *Angewandte Chemie*, **2006**, 118, 4288-4291	3.6	17
36	Synthesis, characterisation and molecular structure of Re(III) 2-oxacyclocarbenes stabilised by a benzoyldiazenido ligand. *Dalton Transactions*, **2004**, 713-22	4.3	17
35	Metal Nanoparticles Supported on Perfluorinated Superacid Polymers: A Family of Bifunctional Catalysts for the Selective, One-Pot Conversion of Vegetable Substrates in Water. *ChemCatChem*, **2017**, 9, 4256-4267	5.2	16
34	Controlling the Activation of White Phosphorus: Formation of Phosphorous Acid and Ruthenium-Coordinated 1-Hydroxytriphosphane by Hydrolysis of Doubly Metalated P4. *Angewandte Chemie*, **2008**, 120, 4497-4499	3.6	16
33	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	2.3	16

32	PdNP@Titanate Nanotubes as Effective Catalyst for Continuous-Flow Partial Hydrogenation Reactions. *ChemCatChem*, **2016**, 8, 1001-1011	5.2	15
31	NanoSelect Precious Metal Catalysts and their Use in Asymmetric Heterogeneous Catalysis. *ChemCatChem*, **2014**, 6, 2904-2909	5.2	15
30	Iodine Activation of Coordinated White Phosphorus: Formation and Transformation of 1,3-Dihydride-2-iodidecyclotetraphosphane. *Angewandte Chemie*, **2012**, 124, 8756-8759	3.6	15
29	Sustainable processes for the catalytic synthesis of safer chemical substitutes of N-methyl-2-pyrrolidone. *Molecular Catalysis*, **2019**, 466, 60-69	3.3	15
28	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	5.5	14
27	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	2.7	14
26	Partial hydrogenation reactions over Pd-containing hybrid inorganic/polymeric catalytic membranes. *Applied Catalysis A: General*, **2013**, 459, 81-88	5.1	13
25	Collective headgroup conformational transition in twisted micellar superstructures. *Soft Matter*, **2008**, 4, 1102-1113	3.6	13
24	New enantiomerically pure aminoalcohols from (R)-□methylbenzylamine and cyclohexene oxide. *Tetrahedron: Asymmetry*, **1996**, 7, 843-850		13
23	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	5.5	11
22	Continuous flow hydrogenation reactions by Pd catalysts onto hybrid ZrO2/PVA materials. *Applied Catalysis A: General*, **2014**, 488, 58-65	5.1	11
21	Dynamic Behaviour of the [(Triphos)Rh(□1:□2-P4RR?)]n+ Complexes [Triphos = MeC(CH2PPh2)3; R = H, Alkyl, Aryl; R? = Lone Pair, H, Me; n = 0, 1]: NMR and Computational Studies. *European Journal of Inorganic Chemistry*, **2008**, 2008, 1392-1399	2.3	11
20	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	2.3	10
19	Adducts of Cyclotriphosphorus Complexes with Cyclopentadienyl Ruthenium Fragments: Synthesis, Solid-State Structure and Solution Behaviour. *European Journal of Inorganic Chemistry*, **2005**, 2005, 1360-1368	2.3	10
18	Heterobimetallic Cooperation Mediates the Transformation of White Phosphorus into Zwitterionic catena-Phosphonium(+)diphosphenide(□)Ligands. *Angewandte Chemie*, **2008**, 120, 3826-3828	3.6	9
17	Strong Cation Exchange with Innocence: Synthesis and Characterization of Borate Containing Resins and Macroporous Monoliths. *Macromolecules*, **2013**, 46, 5423-5433	5.5	8
16	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	2.3	8
15	Beryllium(II) complexes of the K□i tripodal ligand cyclopentadienyltris(diethylphosphito-p)cobaltate(-). *Inorganic Chemistry*, **2001**, 40, 2725-9	5.1	8

List of Publications

14	Selective, aerobic oxidation reaction of alcohols by hybrid Pd/ZrO2/PVA catalytic membranes. *Applied Catalysis A: General*, **2017**, 530, 217-225	5.1	7
13	Continuous flow catalytic partial hydrogenation of hydrocarbons and alcohols over hybrid Pd/ZrO2/PVA wall reactors. *Applied Catalysis A: General*, **2018**, 558, 34-43	5.1	6
12	Adduct of two 1,8-naphthyridine molecules (one protonated) with tetrachloroferrate (III). *Acta Crystallographica Section C: Crystal Structure Communications*, **1992**, 48, 625-627		6
11	Valorisation of plastic waste via metal-catalysed depolymerisation. *Beilstein Journal of Organic Chemistry*, **2021**, 17, 589-621	2.5	6
10	Sustainable Catalytic Synthesis for a Bio-Based Alternative to the Reach-Restricted N-Methyl-2-Pyrrolidone. *Advanced Sustainable Systems*, **2020**, 4, 1900117	5.9	5
9	Progress in Understanding of the Interactions between Functionalized Polyolefins and Organo-Layered Double Hydroxides. *Macromolecular Reaction Engineering*, **2014**, 8, 122-133	1.5	5
8	Large-Scale Synthesis of Chiral Ferrocenyl Imino-Phosphines. *Synthesis*, **2005**, 2005, 2445-2448	2.9	5
7	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	5.1	5
6	Enantioselective hydrogenation of prochiral substrates in catalytic membrane reactors. *Catalysis Science and Technology*, **2011**, 1, 226	5.5	4
5	NMR studies on the novel heterobimetallic complexes [M(dppm)(Ph(2)PCH(2)PPh(2)PPPP) {Pt(PPh3)2}]OTf (M = Rh, Ir) derived from the stepwise activation of white phosphorus. *Magnetic Resonance in Chemistry*, **2008**, 46 Suppl 1, S120-5	2.1	3
4	Synthetic Approaches to New Diastereomerically Pure Ferrocenyl Triphosphines Combining Phosphorus, Planar, and Carbon Chirality. *Synthesis*, **2004**, 2004, 345-352	2.9	3
3	Chloro[o-(diphenylphosphino)benzaldehyde]{N-[o-(diphenylphosphino)benzylidene]ethylamine}(tetrachloro-o-catecho *Acta Crystallographica Section C: Crystal Structure Communications*, **1994**, 50, 1414-1417		3
2	Synthesis, properties and characterization of the trinuclear clusters [Co3(μ-SR)6(PEt3)3]X (R = Me or Et, X = BPh4 or PF6) *Journal of the Chemical Society Dalton Transactions*, **1996**, 4337-4344		2
1	Asymmetric Alkylation or Amination of Allylic Esters **2005**, 35-57		