

T V Rajanbabu

List of Publications by Year in descending order

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38660

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#	ARTICLE	IF	CITATIONS
1	Catalytic Enantioselective Hydrovinylation of Trialkylsilyloxy and Acetoxy-1,3-Dienes: Cationic Co(I) Complexes for the Synthesis of Chiral Enolate Surrogates and Their Applications for Synthesis of Ketones and Cross-Coupling Reagents in High Enantiomeric Purity. <i>ACS Catalysis</i> , 2022, 12, 5094-5111.	5.5	7
2	Activator-free single-component Co(σ)-catalysts for regio- and enantioselective heterodimerization and hydroacylation reactions of 1,3-dienes. New reduction procedures for synthesis of [L]Co(σ)-complexes and comparison to <i>in situ</i> generated catalysts. <i>Dalton Transactions</i> , 2022, 51, 10148-10159.	1.6	5
3	β -C-H Functionalization of Amines via Triple H-Atom Transfer of a Vinyl Sulfonyl Radical Chaperone. <i>Journal of the American Chemical Society</i> , 2022, 144, 13366-13373.	6.6	15
4	Four Mechanistic Mysteries: The Benefits of Writing a Critical Review. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 2194-2201.	7.2	19
5	Four Mechanistic Mysteries: The Benefits of Writing a Critical Review. <i>Angewandte Chemie</i> , 2021, 133, 2222-2229.	1.6	8
6	Cationic Co(I) Catalysts for Regiodivergent Hydroalkenylation of 1,6-Enynes: An Uncommon <i>cis</i> - β -C-H Activation Leads to <i>Z</i> -Selective Coupling of Acrylates. <i>ACS Catalysis</i> , 2021, 11, 9605-9617.	5.5	32
7	β - and γ -Functionalized Ketones from 1,3-Dienes and Aldehydes: Control of Regio- and Enantioselectivity in Hydroacylation of 1,3-Dienes. <i>Journal of the American Chemical Society</i> , 2021, 143, 12825-12835.	6.6	30
8	A New Paradigm in Enantioselective Cobalt Catalysis: Cationic Cobalt(I) Catalysts for Heterodimerization, Cycloaddition, and Hydrofunctionalization Reactions of Olefins. <i>Accounts of Chemical Research</i> , 2021, 54, 4545-4564.	7.6	44
9	Mechanism of Cobalt-Catalyzed Heterodimerization of Acrylates and 1,3-Dienes. A Potential Role of Cationic Cobalt(I) Intermediates. <i>ACS Catalysis</i> , 2020, 10, 4337-4348.	5.5	20
10	The reaction of β , γ -epoxy alcohols with titanium(III) reagents. A proposed role for intramolecular hydrogen bonding. <i>Tetrahedron</i> , 2019, 75, 130662.	1.0	15
11	Catalytic Enantioselective Synthesis of Cyclobutenes from Alkynes and Alkenyl Derivatives. <i>Journal of the American Chemical Society</i> , 2019, 141, 15367-15377.	6.6	83
12	Cationic Co(I)-Intermediates for Hydrofunctionalization Reactions: Regio- and Enantioselective Cobalt-Catalyzed 1,2-Hydroboration of 1,3-Dienes. <i>Journal of the American Chemical Society</i> , 2019, 141, 7365-7375.	6.6	65
13	Demystifying $Cp_2Ti(H)Cl$ and Its Enigmatic Role in the Reactions of Epoxides with Cp_2TiCl . <i>Organometallics</i> , 2018, 37, 4801-4809.	1.1	32
14	Tandem catalysis for asymmetric coupling of ethylene and enynes to functionalized cyclobutanes. <i>Science</i> , 2018, 361, 68-72.	6.0	100
15	Broadly Applicable Stereoselective Syntheses of Serrulatane, Amphilectane Diterpenes, and Their Diastereoisomeric Congeners Using Asymmetric Hydrovinylation for Absolute Stereochemical Control. <i>Journal of the American Chemical Society</i> , 2018, 140, 9868-9881.	6.6	20
16	Control of Selectivity through Synergy between Catalysts, Silanes, and Reaction Conditions in Cobalt-Catalyzed Hydrosilylation of Dienes and Terminal Alkenes. <i>ACS Catalysis</i> , 2017, 7, 2275-2283.	5.5	90
17	Examining the Scope and Thermodynamics of Assembly in Nesting Complexes Comprising Molecular Baskets and TPA Ligands. <i>Organic Letters</i> , 2017, 19, 4932-4935.	2.4	10
18	Catalytic Enantioselective Hetero-dimerization of Acrylates and 1,3-Dienes. <i>Journal of the American Chemical Society</i> , 2017, 139, 18034-18043.	6.6	96

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19	Selective Cobalt-Catalyzed Reduction of Terminal Alkenes and Alkynes Using (EtO) ₂ Si(Me)H as a Stoichiometric Reductant. <i>ACS Catalysis</i> , 2016, 6, 6318-6323.	5.5	58
20	Russian Nesting Doll Complexes of Molecular Baskets and Zinc Containing TPA Ligands. <i>Journal of the American Chemical Society</i> , 2016, 138, 8253-8258.	6.6	31
21	Cobalt-catalysed asymmetric hydrovinylation of 1,3-dienes. <i>Chemical Science</i> , 2015, 6, 3994-4008.	3.7	55
22	Asymmetric Catalysis with Ethylene. Synthesis of Functionalized Chiral Enolates. <i>Journal of the American Chemical Society</i> , 2015, 137, 14268-14271.	6.6	48
23	Bimetallic catalysis in the highly enantioselective ring-opening reactions of aziridines. <i>Chemical Science</i> , 2014, 5, 1102-1117.	3.7	68
24	Triarylphosphine Ligands with Hemilabile Alkoxy Groups: Ligands for Nickel(II)-Catalyzed Olefin Dimerization Reactions. Hydrovinylation of Vinylarenes, 1,3-Dienes, and Cycloisomerization of 1,6-Dienes. <i>Advanced Synthesis and Catalysis</i> , 2014, 356, 2281-2292.	2.1	33
25	Conformation and reactivity in dibenzocyclooctadienes (DBCOD). A general approach to the total synthesis of fully substituted DBCOD lignans via borostannylative cyclization of β,γ -diynes. <i>Chemical Science</i> , 2013, 4, 3979.	3.7	10
26	Highly Efficient Catalytic Dimerization of Styrenes via Cationic Palladium(II) Complexes. <i>Advanced Synthesis and Catalysis</i> , 2013, 355, 3633-3638.	2.1	20
27	On the stereochemistry of acetylide additions to highly functionalized biphenylcarbaldehydes and multi-component cyclization of 1,n-diynes. Syntheses of dibenzocyclooctadiene lignans. <i>Chemical Science</i> , 2012, 3, 1221.	3.7	15
28	Asymmetric Hydrovinylation of 1-Vinylcycloalkenes. Reagent Control of Regio- and Stereoselectivity. <i>Journal of the American Chemical Society</i> , 2012, 134, 6556-6559.	6.6	78
29	Asymmetric Hydrovinylation of Vinylindoles. A Facile Route to Cyclopenta[<i>g</i>]indole Natural Products (+)- <i>cis</i> -Triketrin A and (+)- <i>cis</i> -Triketrin B. <i>Journal of the American Chemical Society</i> , 2012, 134, 5496-5499.	6.6	56
30	Ethylene in Organic Synthesis. Repetitive Hydrovinylation of Alkenes for Highly Enantioselective Syntheses of Pseudopterisins. <i>Journal of the American Chemical Society</i> , 2011, 133, 5776-5779.	6.6	60
31	Low pressure vinylation of aryl and vinyl halides via Heck-Mizoroki reactions using ethylene. <i>Tetrahedron</i> , 2010, 66, 1102-1110.	1.0	33
32	Asymmetric Hydrovinylation of Unactivated Linear 1,3-Dienes. <i>Journal of the American Chemical Society</i> , 2010, 132, 3295-3297.	6.6	134
33	Stereoselective Cyclization of Functionalized 1, <i>n</i> -Diynes Mediated by [X ⁺ Y ⁻] Reagents [X ⁺ Y ⁻ = R ₃ Si ⁺ SnR ₃ ⁻² or (R ₂ N) ₂ B ⁺ SnR ₃ ⁻²]: Synthesis and Properties of Atropisomeric 1,3-Dienes. <i>Journal of the American Chemical Society</i> , 2010, 132, 13078-13087.	6.6	45
34	Mechanism and Stereoselection in a Y-Catalyzed Transacylation Reaction. A Computational Modeling Study. <i>Journal of Organic Chemistry</i> , 2010, 75, 2369-2381.	1.7	6
35	Reactivity and Selectivity in Hydrovinylation of Strained Alkenes. <i>Journal of Organic Chemistry</i> , 2010, 75, 7636-7643.	1.7	34
36	Tunable Phosphoramidite Ligands for Asymmetric Hydrovinylation: Ligands par excellence for Generation of All-Carbon Quaternary Centers. <i>Synthesis</i> , 2009, 2009, 2089-2100.	1.2	15

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37	In Pursuit of an Ideal Carbon-Carbon Bond-Forming Reaction: Development and Applications of the Hydrovinylation of Olefins. <i>Synlett</i> , 2009, 2009, 853-885.	1.0	112
38	Enantioselective Desymmetrization of <i>meso</i> -Aziridines with TMSN ₃ or TMSCN Catalyzed by Discrete Yttrium Complexes. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 1126-1129.	7.2	110
39	Catalytic Asymmetric Synthesis Using Feedstocks: An Enantioselective Route to 2-Arylpropionic Acids and 1-Arylethyl Amines via Hydrovinylation of Vinyl Arenes. <i>Journal of Organic Chemistry</i> , 2009, 74, 3066-3072.	1.7	50
40	A Theoretical Investigation of the Ni(II)-Catalyzed Hydrovinylation of Styrene. <i>Organometallics</i> , 2009, 28, 3552-3566.	1.1	47
41	Regiodivergent Ring Opening of Chiral Aziridines. <i>Science</i> , 2009, 326, 1662-1662.	6.0	120
42	Facile Pd(II)- and Ni(II)-Catalyzed Isomerization of Terminal Alkenes into 2-Alkenes. <i>Journal of Organic Chemistry</i> , 2009, 74, 4565-4572.	1.7	107
43	Ligand Tuning in Asymmetric Hydrovinylation of 1,3-Dienes: A Stereoselective Route to Either Steroid-C ₂₀ or -C ₂₀ Derivatives. <i>Journal of the American Chemical Society</i> , 2008, 130, 9000-9005.	6.6	79
44	Efficient, Selective, and Green: Catalyst Tuning for Highly Enantioselective Reactions of Ethylene. <i>Organic Letters</i> , 2008, 10, 1657-1659.	2.4	72
45	(R)-3-METHYL-3-PHENYL-1-PENTENE VIA CATALYTIC ASYMMETRIC HYDROVINYLACTION. <i>Organic Syntheses</i> , 2008, 85, 248.	1.0	27
46	(R)-2,2'-BINAPHTHOYL-(S,S)-DI(1-PHENYLETHYL) AMINOPHOSPHINE. SCALABLE PROTOCOLS FOR THE SYNTHESSES OF PHOSPHORAMIDITE (FERINGA) LIGANDS. <i>Organic Syntheses</i> , 2008, 85, 238-247.	1.0	9
47	Syntheses and Applications of 2-Phosphino-2-alkoxy-1,1'-binaphthyl Ligands. Development of a Working Model for Asymmetric Induction in Hydrovinylation Reactions. <i>Journal of Organic Chemistry</i> , 2007, 72, 2357-2363.	1.7	48
48	Exceptionally Active Yttrium-Salen Complexes for the Catalyzed Ring Opening of Epoxides by TMSCN and TMSN ₃ . <i>Journal of Organic Chemistry</i> , 2007, 72, 8648-8655.	1.7	44
49	Nickel(0)-Catalyzed Asymmetric Hydrocyanation of 1,3-Dienes. <i>Organic Letters</i> , 2006, 8, 4657-4659.	2.4	107
50	All-Carbon Quaternary Centers via Catalytic Asymmetric Hydrovinylation. New Approaches to the Exocyclic Side Chain Stereochemistry Problem. <i>Journal of the American Chemical Society</i> , 2006, 128, 5620-5621.	6.6	91
51	Hydrovinylation of 1,3-Dienes: A New Protocol, an Asymmetric Variation, and a Potential Solution to the Exocyclic Side Chain Stereochemistry Problem. <i>Journal of the American Chemical Society</i> , 2006, 128, 54-55.	6.6	96
52	Heterodimerization of Olefins. Part 1. Hydrovinylation Reactions of Olefins that Are Amenable to Asymmetric Catalysis. <i>ChemInform</i> , 2004, 35, no.	0.1	0
53	Fine-Tuning Monophosphine Ligands for Enhanced Enantioselectivity. Influence of Chiral Hemilabile Pendant Groups. <i>Organic Letters</i> , 2004, 6, 1515-1517.	2.4	66
54	Chiral Benzyl Centers through Asymmetric Catalysis. A Three-Step Synthesis of (R)-(-)-Curcumene via Asymmetric Hydrovinylation. <i>Organic Letters</i> , 2004, 6, 3159-3161.	2.4	61

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55	Hydrovinylation of Norbornene. Ligand-Dependent Selectivity and Asymmetric Variations. <i>Organic Letters</i> , 2003, 5, 4345-4348.	2.4	74
56	Axial Chirality in 1,4-Disubstituted (ZZ)-1,3-Dienes. Surprisingly Low Energies of Activation for the Enantiomerization in Synthetically Useful Fluxional Molecules. <i>Journal of the American Chemical Society</i> , 2003, 125, 15402-15410.	6.6	38
57	Heterodimerization of Olefins. 1. Hydrovinylation Reactions of Olefins That Are Amenable to Asymmetric Catalysis. <i>Journal of Organic Chemistry</i> , 2003, 68, 8431-8446.	1.7	90
58	Asymmetric Hydrovinylation Reaction. <i>Chemical Reviews</i> , 2003, 103, 2845-2860.	23.0	268
59	Tunable Ligands for Asymmetric Catalysis: Readily Available Carbohydrate-Derived Diarylphosphinites Induce High Selectivity in the Hydrovinylation of Styrene Derivatives. <i>Journal of the American Chemical Society</i> , 2002, 124, 734-735.	6.6	104
60	Ligand-Assisted Rate Acceleration in Transacylation by a Yttrium ^{III} -Salen Complex. Demonstration of a Conceptually New Strategy for Metal-Catalyzed Kinetic Resolution of Alcohols. <i>Organic Letters</i> , 2002, 4, 1607-1610.	2.4	70
61	Synthesis, Characterization, and Applicability of Neutral Polyhydroxy Phospholane Derivatives and Their Rhodium(I) Complexes for Reactions in Organic and Aqueous Media. <i>Journal of the American Chemical Society</i> , 2001, 123, 10207-10213.	6.6	64
62	Ligand Substituent Effects on Asymmetric Induction. Effect of Structural Variations of the DIOP Ligand on the Rh-Catalyzed Asymmetric Hydrogenation of Enamides. <i>Organic Letters</i> , 2000, 2, 4137-4140.	2.4	60
63	Metal-Catalyzed Acyl Transfer Reactions of Enol Esters: Role of Y5(OiPr)13O and (thd)2Y(OiPr) as Transesterification Catalysts. <i>Organic Letters</i> , 2000, 2, 997-1000.	2.4	74
64	Ligand Tuning in Asymmetric Catalysis: Mono- and Bis-Phospholanes for a Prototypical Pd-Catalyzed Asymmetric Allylation Reaction. <i>Organic Letters</i> , 2000, 2, 199-202.	2.4	67
65	First Chelated Chiral N-Heterocyclic Bis-Carbene Complexes. <i>Organic Letters</i> , 2000, 2, 1125-1128.	2.4	185
66	Highly Flexible Synthetic Routes to Functionalized Phospholanes from Carbohydrates. <i>Journal of Organic Chemistry</i> , 2000, 65, 900-906.	1.7	80
67	Hydrovinylation and Related Reactions: New Protocols and Control Elements in Search of Greater Synthetic Efficiency and Selectivity. <i>Chemistry - A European Journal</i> , 1999, 5, 1963-1968.	1.7	67
68	Synergistic Effects of Hemilabile Coordination and Counterions in Homogeneous Catalysis: New Tunable Monophosphine Ligands for Hydrovinylation Reactions. <i>Journal of the American Chemical Society</i> , 1999, 121, 9899-9900.	6.6	130
69	Substituent Effects of Ligands on Asymmetric Induction in a Prototypical Palladium-Catalyzed Allylation Reaction: Making Both Enantiomers of a Product in High Optical Purity Using the Same Source of Chirality. <i>Journal of Organic Chemistry</i> , 1999, 64, 7601-7611.	1.7	90
70	Water-Soluble Organometallic Catalysts from Carbohydrates. 1. Diphosphinite ^{III} -Rh Complexes. <i>Organic Letters</i> , 1999, 1, 1229-1232.	2.4	54
71	Electronic Effects in Asymmetric Catalysis: Structural Studies of Precatalysts and Intermediates in Rh-Catalyzed Hydrogenation of Dimethyl Itaconate and Acetamidocinnamic Acid Derivatives Using C ₂ -Symmetric Diarylphosphinite Ligands. <i>Journal of Organic Chemistry</i> , 1999, 64, 3429-3447.	1.7	91
72	The Hydrovinylation Reaction: A New Highly Selective Protocol Amenable to Asymmetric Catalysis. <i>Journal of the American Chemical Society</i> , 1998, 120, 459-460.	6.6	142

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73	Catalyzed Cyclization of $\hat{I}\pm, i\%$ -Dienes: A Versatile Protocol for the Synthesis of Functionalized Carbocyclic and Heterocyclic Compounds. <i>Journal of the American Chemical Society</i> , 1998, 120, 8007-8008.	6.6	107
74	Role of Electronic Asymmetry in the Design of New Ligands: The Asymmetric Hydrocyanation Reaction. <i>Journal of the American Chemical Society</i> , 1996, 118, 6325-6326.	6.6	153
75	Selective Generation of Free Radicals from Epoxides Using a Transition-Metal Radical. A Powerful New Tool for Organic Synthesis. <i>Journal of the American Chemical Society</i> , 1994, 116, 986-997.	6.6	474
76	Ligand Electronic Effects in Asymmetric Catalysis: Enhanced Enantioselectivity in the Asymmetric Hydrocyanation of Vinylarenes. <i>Journal of the American Chemical Society</i> , 1994, 116, 9869-9882.	6.6	283
77	Electronic effects in asymmetric catalysis: Enantioselective carbon-carbon bond forming processes. <i>Pure and Applied Chemistry</i> , 1994, 66, 1535-1542.	0.9	61
78	Stereochemistry of intramolecular free-radical cyclization reactions. <i>Accounts of Chemical Research</i> , 1991, 24, 139-145.	7.6	253
79	Stereochemical control in hex-5-enyl radical cyclizations: from carbohydrates to carbocycles. 3. <i>Journal of the American Chemical Society</i> , 1989, 111, 1759-1769.	6.6	112
80	Transition-metal-centered radicals in organic synthesis. Titanium(III)-induced cyclization of epoxy olefins. <i>Journal of the American Chemical Society</i> , 1988, 110, 8561-8562.	6.6	325
81	From carbohydrates to carbocycles. 2. A free radical route to Corey lactone and other prostanoid intermediates. <i>Journal of Organic Chemistry</i> , 1988, 53, 4522-4530.	1.7	62
82	Nucleophilic addition of silyl enol ethers to aromatic nitro compounds: scope and mechanism of reaction. <i>Journal of the American Chemical Society</i> , 1985, 107, 5473-5483.	6.6	67