

Rajiv Kumar

List of Publications by Year in descending order

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116
papers

9,682
citations

87888

38
h-index

36028

97
g-index

121
all docs

121
docs citations

121
times ranked

8242
citing authors

#	ARTICLE	IF	CITATIONS
1	Extracellular biosynthesis of silver nanoparticles using the fungus <i>Fusarium oxysporum</i> . <i>Colloids and Surfaces B: Biointerfaces</i> , 2003, 28, 313-318.	5.0	1,505
2	Fungus-Mediated Synthesis of Silver Nanoparticles and Their Immobilization in the Mycelial Matrix: A Novel Biological Approach to Nanoparticle Synthesis. <i>Nano Letters</i> , 2001, 1, 515-519.	9.1	1,181
3	Bioreduction of AuCl ₄ ⁻ Ions by the Fungus, <i>Verticillium</i> sp. and Surface Trapping of the Gold Nanoparticles Formed D.M. and S.S. thank the Council of Scientific and Industrial Research (CSIR), Government of India, for financial assistance.. <i>Angewandte Chemie - International Edition</i> , 2001, 40, 3585.	13.8	768
4	Extracellular Biosynthesis of Monodisperse Gold Nanoparticles by a Novel Extremophilic Actinomycete, <i>Thermomonospora</i> sp.. <i>Langmuir</i> , 2003, 19, 3550-3553.	3.5	684
5	Intracellular synthesis of gold nanoparticles by a novel alkalotolerant actinomycete, <i>Rhodococcus</i> species. <i>Nanotechnology</i> , 2003, 14, 824-828.	2.6	618
6	Extracellular Synthesis of Gold Nanoparticles by the Fungus <i>Fusarium oxysporum</i> . <i>ChemBioChem</i> , 2002, 3, 461.	2.6	560
7	Enzyme Mediated Extracellular Synthesis of CdS Nanoparticles by the Fungus, <i>Fusarium oxysporum</i> . <i>Journal of the American Chemical Society</i> , 2002, 124, 12108-12109.	13.7	509
8	Extracellular Biosynthesis of Bimetallic Au-Ag Alloy Nanoparticles. <i>Small</i> , 2005, 1, 517-520.	10.0	417
9	Ferrisilicate analogs of zeolites. <i>Catalysis Today</i> , 1991, 9, 329-416.	4.4	205
10	Promoter-induced enhancement of the crystallization rate of zeolites and related molecular sieves. <i>Nature</i> , 1996, 381, 298-300.	27.8	151
11	A hybrid framework for multimedia data processing in IoT-healthcare using blockchain technology. <i>Multimedia Tools and Applications</i> , 2020, 79, 9711-9733.	3.9	140
12	A Blockchain Framework for Securing Connected and Autonomous Vehicles. <i>Sensors</i> , 2019, 19, 3165.	3.8	135
13	Synergistic role of acid sites in the Ce-enhanced activity of mesoporous Ce-Al-MCM-41 catalysts in alkylation reactions: FTIR and TPD-ammonia studies. <i>Journal of Catalysis</i> , 2007, 245, 338-347.	6.2	119
14	Characterization and Catalytic Activity of Gold Nanoparticles Synthesized by Autoreduction of Aqueous Chloroaurate Ions with Fumed Silica. <i>Chemistry of Materials</i> , 2002, 14, 1678-1684.	6.7	107
15	Preparation and stabilization of gold nanoparticles formed by in situ reduction of aqueous chloroaurate ions within surface-modified mesoporous silica. <i>Microporous and Mesoporous Materials</i> , 2003, 58, 201-211.	4.4	96
16	Triphase Catalysis over Titanium-Silicate Molecular Sieves under Solvent-free Conditions. <i>Journal of Catalysis</i> , 1998, 178, 101-107.	6.2	93
17	Sulfoxidation of thioethers using titanium silicate molecular sieve catalysts. <i>Journal of the Chemical Society Chemical Communications</i> , 1992, , 84.	2.0	90
18	The spaciousness index: A novel test reaction for characterizing the effective pore width of bifunctional zeolite catalysts. <i>Applied Catalysis</i> , 1986, 27, 207-210.	0.8	85

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19	Baeyer-Villiger rearrangement catalysed by titanium silicate molecular sieve (TS-1)/H ₂ O ₂ system. <i>Catalysis Letters</i> , 1996, 40, 47-50.	2.6	80
20	²⁹ Si and ²⁷ Al MAS/3Q-MAS NMR Studies of High Silica USY Zeolites. <i>Journal of Physical Chemistry B</i> , 2002, 106, 6115-6120.	2.6	78
21	Titanium silicate molecular sieve (TS-1)/H ₂ O ₂ induced triphase catalysis in the oxidation of hydrophobic organic compounds with significant enhancement of activity and Para-selectivity. <i>Journal of the Chemical Society Chemical Communications</i> , 1995, , 349.	2.0	75
22	Amphoterization of Colloidal Gold Particles by Capping with Valine Molecules and Their Phase Transfer from Water to Toluene by Electrostatic Coordination with Fatty Amine Molecules. <i>Langmuir</i> , 2000, 16, 9775-9783.	3.5	64
23	Crystallization kinetics of a new titanium silicate with MEL structure (TS-2). <i>Zeolites</i> , 1992, 12, 95-100.	0.5	63
24	A Secure, Energy- and SLA-Efficient (SESE) E-Healthcare Framework for Quickest Data Transmission Using Cyber-Physical System. <i>Sensors</i> , 2019, 19, 2119.	3.8	62
25	Visible light-induced splitting of water using CdS nanocrystallites immobilized over water-repellant polymeric surface. <i>International Journal of Hydrogen Energy</i> , 2007, 32, 2784-2790.	7.1	61
26	Network modelling and computation of quickest path for service-level agreements using bi-objective optimization. <i>International Journal of Distributed Sensor Networks</i> , 2019, 15, 155014771988111.	2.2	61
27	Oxidative Organic Transformations Catalyzed by Titanium- and Vanadium-Silicate Molecular Sieves. <i>Synlett</i> , 1995, 1995, 289-298.	1.8	59
28	A facile and selective synthesis of β -keto esters via zeolite catalysed transesterification. <i>Chemical Communications</i> , 1996, , 707-708.	4.1	57
29	Performance comparison and detailed study of AODV, DSDV, DSR, TORA and OLSR routing protocols in ad hoc networks. , 2016, , .		57
30	Effect of Composition on the Catalytic Properties of Mixed Ligand Coated Gold Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 7900-7905.	13.8	52
31	Reaction Modeling and Optimization Using Neural Networks and Genetic Algorithms: A Case Study Involving TS-1-Catalyzed Hydroxylation of Benzene. <i>Industrial & Engineering Chemistry Research</i> , 2002, 41, 2159-2169.	3.7	49
32	Hydroxy-assisted chemo- and stereo-selective epoxidation catalysed by a titanium silicate molecular sieve (TS-1)/H ₂ O ₂ system. <i>Journal of the Chemical Society Chemical Communications</i> , 1995, , 1315.	2.0	48
33	Enhancement in the reaction rates in the hydroxylation of aromatics over TS-1/H ₂ O ₂ under solvent-free triphase conditions. <i>Catalysis Today</i> , 1999, 49, 185-191.	4.4	47
34	Triphase, solvent-free catalysis over the TS-1/H ₂ O ₂ system in selective oxidation reactions. <i>Microporous and Mesoporous Materials</i> , 1998, 21, 497-504.	4.4	45
35	Structure Sensitivity of Nano-structured CdS/SBA-15 Containing Au and Pt Co-catalysts for the Photocatalytic Splitting of Water. <i>Catalysis Letters</i> , 2008, 121, 226-233.	2.6	44
36	Solvent-free coumarin synthesis via Pechmann reaction using solid catalysts. <i>Microporous and Mesoporous Materials</i> , 2012, 149, 1-9.	4.4	44

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37	Risk-energy aware service level agreement assessment for computing quickest path in computer networks. International Journal of Reliability and Safety, 2019, 13, 96.	0.2	44
38	Induction of apoptosis in Vero cells by Newcastle disease virus requires viral replication, de-novo protein synthesis and caspase activation. Virus Research, 2008, 133, 285-290.	2.2	42
39	Multinuclear (²⁷ Al, ²⁹ Si, ⁴⁷ , ⁴⁹ Ti) solid-state NMR of titanium substituted zeolite USY. Solid State Nuclear Magnetic Resonance, 2003, 24, 184-195.	2.3	40
40	Service-Level Agreementâ€”Energy Cooperative Quickest Ambulance Routing for Critical Healthcare Services. Arabian Journal for Science and Engineering, 2019, 44, 3831-3848.	3.0	40
41	Immobilization of biogenic gold nanoparticles in thermally evaporated fatty acid and amine thin films. Journal of Colloid and Interface Science, 2004, 274, 69-75.	9.4	38
42	Computation of the Reliable and Quickest Data Path for Healthcare Services by Using Service-Level Agreements and Energy Constraints. Arabian Journal for Science and Engineering, 2019, 44, 9087-9104.	3.0	38
43	Immobilization of 1,5,7-triazabicyclo [4.4.0] dec-5-ene over mesoporous materials: An efficient catalyst for Michael-addition reactions under solvent-free condition. Applied Catalysis A: General, 2011, 397, 250-258.	4.3	37
44	Velogenic Newcastle Disease Virus as an Oncolytic Virotherapeutics: In Vitro Characterization. Applied Biochemistry and Biotechnology, 2012, 167, 2005-2022.	2.9	37
45	Synthesis of zeolite beta using silica gel as a source of SiO ₂ . Journal of Chemical Technology and Biotechnology, 1990, 48, 453-466.	3.2	34
46	Efficient heterogeneous catalytic systems for enantioselective hydrogenation of prochiral carbonyl compounds. Journal of Catalysis, 2004, 228, 386-396.	6.2	33
47	Synthesis and characterization of a crystalline vanadium silicate with MEL structure. Zeolites, 1993, 13, 663-670.	0.5	32
48	Eco-friendly synthesis of epichlorohydrin catalyzed by titanium silicate (TS-1) molecular sieve and hydrogen peroxide. Catalysis Communications, 2007, 8, 379-382.	3.3	32
49	Transition metal-silicate analogs of zeolites. Catalysis Letters, 1993, 22, 227-237.	2.6	30
50	Chemoselective oxidation of organic compounds having two or more functional groups. Studies in Surface Science and Catalysis, 1994, , 1883-1888.	1.5	30
51	MIMO adaptive vibration control of smart structures with quickly varying parameters: Neural networks vs classical control approach. Journal of Sound and Vibration, 2007, 307, 639-661.	3.9	30
52	A constrained framework for contextâ€”aware remote Eâ€”healthcare (CARE) services. Transactions on Emerging Telecommunications Technologies, 2022, 33, e3649.	3.9	26
53	Eco-friendly, Selective Hydroxylation of C-7 Aromatic Compounds Catalyzed by TS-1/H ₂ O ₂ System under Solvent-free Solidâ€”Liquidâ€”Liquid-Type Triphase Conditions. Industrial & Engineering Chemistry Research, 2007, 46, 8657-8664.	3.7	25
54	Ru(II) Phenanthroline Complex As Catalyst for Chemoselective Hydrogenation of Nitro-Aryls in a Green Process. Industrial & Engineering Chemistry Research, 2010, 49, 12180-12184.	3.7	25

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55	Risk-energy aware service level agreement assessment for computing quickest path in computer networks. <i>International Journal of Reliability and Safety</i> , 2019, 13, 96.	0.2	25
56	Synthesis, characterization and catalytic application of Ru(II)-ethylenediamine complex mesoporous silica as heterogeneous catalyst system in chemo-selective hydrogenation of α,β -unsaturated carbonyl compounds. <i>Microporous and Mesoporous Materials</i> , 2005, 87, 33-44.	4.4	22
57	An optimal routing scheme for critical healthcare HTH services – an IOT perspective. , 2017, . .		22
58	Synthesis of MTW-type microporous material and its vanadium-silicate analogue using a new diquaternary ammonium cation as a template. <i>Microporous Materials</i> , 1995, 5, 173-178.	1.6	20
59	Selective oxidation with redox metallosilicates in the production of fine chemicals. <i>Studies in Surface Science and Catalysis</i> , 1995, 97, 367-376.	1.5	20
60	Enhanced ACLD treatment using stand-off-layer: FEM based design and experimental vibration analysis. <i>Applied Acoustics</i> , 2011, 72, 856-872.	3.3	20
61	Solvent-free Mukaiyama-aldol condensation catalyzed by Ce(IV)-MCM-41 mesoporous materials. <i>Microporous and Mesoporous Materials</i> , 2011, 144, 82-90.	4.4	19
62	Convenient synthesis of crystalline microporous transition metal silicates using complexing agents. <i>Studies in Surface Science and Catalysis</i> , 1994, , 109-116.	1.5	18
63	Adaptive vibration control of smart structures: a comparative study. <i>Smart Materials and Structures</i> , 2006, 15, 1358-1369.	3.5	18
64	NCL-7, A novel all silica analog of polymorph B rich member of BEA family: Synthesis and characterization. <i>Microporous and Mesoporous Materials</i> , 2007, 101, 108-114.	4.4	18
65	Heteropolyacids aided rapid and convenient syntheses of highly ordered MCM-41 and MCM-48: exploring the accelerated process by ^{29}Si MAS NMR and powder X-ray diffraction studies Electronic supplementary information (ESI) available: powder XRD patterns and instrumentation details. See http://www.rsc.org/suppdata/cc/b2/b206482k/ . <i>Chemical Communications</i> . 2002, , 2404-2405.	4.1	16
66	Pole Placement Techniques for Active Vibration Control of Smart Structures: A Feasibility Study. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2007, 129, 601-615.	1.6	16
67	AN EXPERIMENTAL FIRE IN COMPARTMENT WITH DUAL VENT ON OPPOSITE WALLS. <i>Combustion Science and Technology</i> , 2007, 179, 1527-1547.	2.3	16
68	New mixed ligand coated platinum nanoparticles for heterogeneous catalytic applications. <i>Catalysis Today</i> , 2012, 198, 77-84.	4.4	15
69	Steric control of tritolylphosphines on the nuclearity of Cu(I) complexes: Syntheses and structures of the iodo-bridged $[\text{Cu}_4(\text{I}/4-3-\text{I})_4(\text{p-tolyl}_3\text{P})_4]$ cubane and the $[\text{Cu}_2(\text{I}/4-\text{I})_2(\text{o-tolyl}_3\text{P})_2]$ dimer. <i>Journal of Coordination Chemistry</i> , 2005, 58, 849-855.	2.2	14
70	HN Protein of Newcastle Disease Virus Induces Apoptosis Through SAPK/JNK Pathway. <i>Applied Biochemistry and Biotechnology</i> , 2015, 177, 940-956.	2.9	14
71	Service level agreement and energy cooperative cyber physical system for quickest healthcare services. <i>Journal of Intelligent and Fuzzy Systems</i> , 2019, 36, 4077-4089.	1.4	13
72	Characterization of the pore geometry of the high-silica zeolite NCL-1 through various catalytic test reactions. <i>Microporous Materials</i> , 1994, 3, 195-200.	1.6	12

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73	Organo-functionalized surface modified MCM-41 type mesoporous materials having various organic functional groups. <i>Studies in Surface Science and Catalysis</i> , 2000, 129, 283-286.	1.5	11
74	Identification of distinct Brønsted acidic sites in zeolite mordenite by proton localization and [27Al]-1H REAPDOR NMR. <i>Chemical Communications</i> , 2003, , 2076-2077.	4.1	11
75	Identification of tetrahedrally ordered Si-O-Al environments in molecular sieves by {27Al}-29Si REAPDOR NMR. <i>Chemical Physics Letters</i> , 2004, 390, 79-83.	2.6	10
76	Adaptive hybrid control of smart structures subjected to multiple disturbances. <i>Smart Materials and Structures</i> , 2006, 15, 1345-1357.	3.5	10
77	Highly Chemoselective Catalytic System for Hydrogenation of Diketones to Ketols: An Environmentally Benevolent System. <i>Catalysis Letters</i> , 2008, 120, 257-260.	2.6	10
78	Synthesis and characterization of NCL-5, NCL-6 and NCL-7: New zeolites enriched with polymorph B of the BEA family. <i>Microporous and Mesoporous Materials</i> , 2007, 105, 82-88.	4.4	9
79	Active Vibration Control of Beams by Combining Precompressed Layer Damping and ACLD Treatment: Performance Comparison of Various Robust Control Techniques. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2012, 134, .	1.6	9
80	Chemo- und diastereoselektive Epoxidierung von chiralen Allylkoholen mit dem Wasserstoffperoxid-Harnstoff-Addukt (UHP), katalysiert durch das Titansilicalit TS-1. <i>Angewandte Chemie</i> , 1996, 108, 944-947.	2.0	8
81	Ordered organo-inorganic hybrid mesoporous solid acid catalysts (Zr-TMS-TFA) for Michael addition of indoles with α,β -unsaturated carbonyl compounds under environmentally benign solvent free conditions. <i>Microporous and Mesoporous Materials</i> , 2012, 164, 232-238.	4.4	8
82	A Framework for Risk-Energy Aware Service-Level Agreement Provisioning (RESP) for Computing the Quickest Path. <i>Journal of Computer Networks and Communications</i> , 2019, 2019, 1-8.	1.6	8
83	On Energy-constrained Quickest Path Problem in Green Communication Using Intuitionistic Trapezoidal Fuzzy Numbers. <i>Recent Advances in Computer Science and Communications</i> , 2021, 14, 192-200.	0.7	8
84	Heteroligand complexes of some rare earth metals with CDTA and unsaturated dicarboxylic acids. <i>Journal of Inorganic and Nuclear Chemistry</i> , 1981, 43, 2503-2506.	0.5	7
85	Low temperature, efficient synthesis of new As(V)-silicate molecular sieves with MFI topology and their catalytic properties in oxidation reactions. <i>Catalysis Letters</i> , 1995, 35, 327-334.	2.6	7
86	Multivariable adaptive vibration control of smart structures using iterative (LQG) control strategies. <i>Smart Materials and Structures</i> , 2005, 14, 953-962.	3.5	7
87	COMPARTMENT FIRES: CALTREE AND CROSS-VENTILATION. <i>Combustion Science and Technology</i> , 2007, 179, 1549-1567.	2.3	7
88	Enhanced active constrained layer damping (ACLD) treatment using stand-off-layer: robust controllers design, experimental implementation and comparison. <i>JVC/Journal of Vibration and Control</i> , 2013, 19, 439-460.	2.6	7
89	Ce-Al-MCM-41: an efficient catalyst for Mukaiyama-Michael reaction. <i>Studies in Surface Science and Catalysis</i> , 2007, , 1161-1166.	1.5	6
90	Heterogenized Ru(II) phenanthroline complex for chemoselective hydrogenation of diketones under biphasic aqueous medium. <i>Journal of Molecular Catalysis A</i> , 2010, 333, 114-120.	4.8	6

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91	Risk-aware optimized quickest path computing technique for critical routing services. Computers and Electrical Engineering, 2021, 95, 107436.	4.8	6
92	Mixed ligand chelates of some rare earth metals with diethylenetriamine-pentaacetic acid and dicarboxylic acids. Monatshefte für Chemie, 1979, 110, 907-912.	1.8	5
93	Optimized Near Minimum Time Control of Flexible Structures Using Variable Gain (LQG) Control Strategies. Journal of Vibration and Acoustics, Transactions of the ASME, 2006, 128, 402-407.	1.6	5
94	Efficient Active Vibration Control of Smart Structures With Modified Positive Position Feedback Control Using Pattern Search Methods in the Presence of Instrumentation Phase Lead and Lag. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2013, 135, .	1.6	5
95	COMPARTMENT FIRES: AN EXPERIMENTAL STUDY. Journal of Applied Fire Science, 2002, 11, 255-277.	0.0	5
96	A framework for continuity of mission-critical network services. , 2015, , .		4
97	Synthesis, characterization and catalytic properties of ferri- and gallo-silicate analogues of zeolite NCL-1. Catalysis Letters, 1996, 38, 245-249.	2.6	3
98	A new method for enhancing zeolite crystallization by using oxyacids/salts of group VA and VIIA elements as promoters. Studies in Surface Science and Catalysis, 1997, 105, 141-148.	1.5	3
99	Administration of Î²Bâ€kinase inhibitor PS1145 enhances apoptosis in DMBAâ€induced tumor in male Wistar rats. Cell Biology International, 2015, 39, 1317-1328.	3.0	3
100	COMPARTMENT FIRES: A SIMPLE MATHEMATICAL MODEL. Journal of Applied Fire Science, 2002, 11, 53-74.	0.0	3
101	Randomization-Based Dynamic Programming Offloading Algorithm for Mobile Fog Computing. Security and Communication Networks, 2021, 2021, 1-9.	1.5	2
102	Experimental Validation of RELIEFâ€”A Zone Model to Predict Fire Behavior in Enclosures with Wall Linings. Journal of Applied Fire Science, 2007, 17, 311-336.	0.0	2
103	Equilibrium studies on some heteroligand hydroxo complexes of lanthanons with iminodiacetic acid and citraconic or maleic acid. Monatshefte für Chemie, 1984, 115, 283-288.	1.8	1
104	Selective fries rearrangement of phenyl acetate into hydroxy acetophenones catalyzed by high-silica zeolite NCL-1. Studies in Surface Science and Catalysis, 1997, , 1197-1202.	1.5	1
105	Catalyzing the preparation of zeolite catalysts. Studies in Surface Science and Catalysis, 1998, 113, 225-232.	1.5	1
106	Performance Analysis of Finite Element and Energy Based Analytical Methods for Modeling of PCLD Treated Beams. Journal of Vibration and Acoustics, Transactions of the ASME, 2012, 134, .	1.6	1
107	An architecture of smart transportation system using modified RR algorithm and VANET. , 2017, , .		1
108	B Smart Technologies in Engineering Applications of Cyber Physical System in Healthcare: Sensing, Imaging, Computing and Networking. Recent Advances in Computer Science and Communications, 2021, 14, 225-226.	0.7	1

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109	CATALYTIC PROPERTIES OF [Al]-, [Ga]- AND [Fe]-SILICATE ANALOGS OF ZSM-11 IN C7 AND C8 AROMATIC HYDROCARBON REACTIONS: INFLUENCE OF ISOMORPHOUS SUBSTITUTION. , 1993, , 551-558.		1
110	RELIEFâ€™A Simple Zone Model to Predict Fire Behavior in Enclosures with Wall Linings. Journal of Applied Fire Science, 2007, 17, 295-310.	0.0	1
111	Heteropolyacids Aided Rapid and Convenient Syntheses of Highly Ordered MCM-41 and MCM-48: Exploring the Accelerated Process by ²⁹ Si MAS NMR and Powder X-Ray Diffraction Studies.. ChemInform, 2003, 34, no.	0.0	0
112	Selective Hydrogenation of Acetophenone by Heterogenized Transition Metal Complexes. Studies in Surface Science and Catalysis, 2007, 172, 477-480.	1.5	0
113	Active Vibration Control of Beams By Combining Precompressed Layer Damping and ACLD Treatment: Theory and Experimental Implementation. Journal of Vibration and Acoustics, Transactions of the ASME, 2011, 133, .	1.6	0
114	A parallel cross-connection recovery scheme for dual link failure in elastic optical networks. Journal of Optical Communications, 2023, 44, 447-455.	4.7	0
115	Alleviation of Delay in Tele-Surgical Operations using Markov Approach based Smith Predictor. International Journal of Business Analytics, 2022, 9, 0-0.	0.4	0
116	Cloning and expression analysis of multiple proteins encoding P gene of Newcastle disease virus. Indian Journal of Experimental Biology, 2013, 51, 116-23.	0.0	0