Raghavachari Dhamodharan

List of Publications by Year
in descending order

106	2,726	185998	214527
papers	citations	28 h-index	47 g-index

106	106	106	3343
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Super water-absorbing hydrogel based on chitosan, itaconic acid and urea: preparation, characterization and reversible water absorption. Polymer Bulletin, 2022, 79, 3013-3030.	1.7	10
2	Tough Gels and Macroporous Foams Based on Chitosan through Hydrothermal Synthesis of Chitosan, Tartaric Acid, and Urea. ACS Applied Polymer Materials, 2022, 4, 1764-1774.	2.0	6
3	Hydrophobic nanocomposites of <scp>PBAT</scp> with <scp>Clâ€‹fnâ€‹POSS</scp> nanofiller as compostable food packaging films. Polymer Engineering and Science, 2021, 61, 314-326.	1.5	17
4	Statistical augmentation of polyhydroxybutyrate production by Isoptericola variabilis: Characterization, moulding, in vitro cytocompatibility and biodegradability evaluation. International Journal of Biological Macromolecules, 2021, 166, 80-97.	3.6	13
5	Fabrication of macroporous soft hydrogels of Chitosan scaffolds by hydrothermal reaction and cytotoxicity to 3T3 L1 cells. Journal of Polymer Research, 2021, 28, 1.	1.2	4
6	Valorization of agro-wastes for the biosynthesis and characterization of polyhydroxybutyrate by Bacillus sp. isolated from rice bran dumping yard. 3 Biotech, 2021, 11, 202.	1.1	2
7	Naphthalimide-phenothiazine based Aâ€™Ï€-Dï€-A featured organic dyes for dye sensitized solar cell applications. Journal of Photochemistry and Photobiology A: Chemistry, 2021, 404, 112820.	2.0	19
8	Advances in chitosan-based hydrogels: Evolution from covalently crosslinked systems to ionotropically crosslinked superabsorbents. Reactive and Functional Polymers, 2020, 149, 104517.	2.0	65
9	Scale-up of non-toxic poly(butylene adipate-co-terephthalate)-Chitin based nanocomposite articles by injection moulding and 3D printing. International Journal of Biological Macromolecules, 2020, 165, 3145-3155.	3.6	10
10	Rapid, Solvent-Free Synthesis of Amorphous, Photoluminescent, Carbon Nanodots from Imidazole and Maleic Anhydride Solids. ACS Sustainable Chemistry and Engineering, 2019, 7, 13206-13216.	3.2	15
11	Facile preparation of biocompatible macroporous chitosan hydrogel by hydrothermal reaction of a mixture of chitosan-succinic acid-urea. Materials Science and Engineering C, 2019, 104, 109845.	3.8	18
12	Biocompatible hydrogels of chitosan-alkali lignin for potential wound healing applications. Materials Science and Engineering C, 2019, 102, 447-457.	3.8	137
13	Preparation of nanofibrillated cellulose and nanocrystalline cellulose from surgical cotton and cellulose pulp in hot-glycerol medium. Cellulose, 2019, 26, 3127-3141.	2.4	24
14	Super water absorbing polymeric gel from chitosan, citric acid and urea: Synthesis and mechanism of water absorption. Carbohydrate Polymers, 2018, 191, 152-160.	5.1	64
15	Pretreatment in Hot Glycerol for Facile and Green Separation of Chitin from Prawn Shell Waste. ACS Sustainable Chemistry and Engineering, 2018, 6, 846-853.	3.2	61
16	Wear-induced mechanical degradation of plastics by low-energy wet-grinding. Polymer Degradation and Stability, 2018, 158, 212-219.	2.7	13
17	Facile, shear-induced, rapid formation of stable gels of chitosan through in situ generation of colloidal metal salts. Chemical Communications, 2018, 54, 11582-11585.	2.2	10
18	Facile synthesis of triphenylamine and phenothiazine-based Schiff bases for aggregation-induced enhanced emission, white light generation, and highly selective and sensitive copper(<scp>ii</scp>) sensing. New Journal of Chemistry, 2018, 42, 18979-18990.	1.4	27

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19	Green, Solid-State Synthesis of Maleated Chitosan and Ionotropic Gelation with Chitosan. ACS Sustainable Chemistry and Engineering, 2018, 6, 15191-15200.	3.2	33
20	Biocompatible Porous Scaffolds of Chitosan/Poly(EG-ran-PG) Blends with Tailored Pore Size and Nontoxic to Mesenchymal Stem Cells: Preparation by Controlled Evaporation from Aqueous Acetic Acid Solution. ACS Omega, 2018, 3, 10286-10295.	1.6	12
21	Sustainable Process for Separating Chitin and Simultaneous Synthesis of Carbon Nanodots from Shellfish Waste Using 2% Aqueous Urea Solution. ACS Sustainable Chemistry and Engineering, 2018, 6, 11313-11325.	3.2	13
22	Phenothiazine Based Donorâ€“Acceptor Compounds with Solidâ€State Emission in the Yellow to NIR Region and Their Highly Selective and Sensitive Detection of Cyanide Ion in ppb Level. Chemistry - A European Journal, 2018, 24, 11042-11050.	1.7	46
23	Novel ethynyl-pyrene substituted phenothiazine based metal free organic dyes in DSSC with 12% conversion efficiency. Journal of Materials Chemistry A, 2017, 5, 10289-10300.	5.2	103
24	Development of a green foaming agent and its performance evaluation. Cement and Concrete Composites, 2017, 80, 245-257.	4.6	31
25	Tetrakis(trialkylsilylethynylphenyl)ethenes: mechanofluorochromism arising from steric considerations with an unusual crystal structure. Journal of Materials Chemistry C, 2017, 5, 10469-10476.	2.7	34
26	Green Synthesis of Triangular Au Nanoplates: Role of Small Molecules Present in Bael Gum. ACS Sustainable Chemistry and Engineering, 2017, 5, 10317-10326.	3.2	8
27	White light emission from fluorene-EDOT and phenothiazine-hydroquinone based Dâ€“Ï€â€“A conjugated systems in solution, gel and film forms. New Journal of Chemistry, 2017, 41, 9741-9751.	1.4	15
28	Green, Seed-Mediated Synthesis of Au Nanowires and Their Efficient Electrocatalytic Activity in Oxygen Reduction Reaction. ACS Applied Materials & Interfaces, 2017, 9, 28876-28886.	4.0	14
29	Atom Transfer Radical Polymerization: A Key Tool Towards the Design and Synthesis of Functional Polymers. , 2017, , 57-126.		1
30	Green, Selective, Seedless and One-Pot Synthesis of Triangular Au Nanoplates of Controlled Size Using Bael Gum and Mechanistic Study. ACS Sustainable Chemistry and Engineering, 2016, 4, 3830-3839.	3.2	29
31	Facile Aqueous Phase Synthesis of (200) Faceted Au-AgCl Cubes Using Bael Gum and Its Activity Toward Oxidation and Detection of o-PDA. ACS Sustainable Chemistry and Engineering, 2016, 4, 2960-2968.	3.2	12
32	Surface modified microcrystalline cellulose from cotton as a potential mineral admixture in cement mortar composite. Cement and Concrete Composites, 2016, 74, 147-153.	4.6	40
33	Conjugated polymers with carbazole, fluorene, and ethylene dioxythiophene in the main chain and a pendant cyano group: Synthesis, photophysical, and electrochemical studies. Journal of Polymer Science Part A, 2016, 54, 2774-2784.	2.5	10
34	A new route to polymeric materials derived from chitosan and natural rubber. Polymer Bulletin, 2015, 72, 2311-2330.	1.7	8
35	Sodium salt admixtures for enhancing the foaming characteristics of sodium lauryl sulphate. Cement and Concrete Composites, 2015, 57, 133-141.	4.6	22
36	Rational design of phenothiazine (PTz) and ethylenedioxythiophene (EDOT) based donorâ€“acceptor compounds with a molecular aggregation breaker for solid state emission in red and NIR regions. Journal of Materials Chemistry C, 2015, 3, 8642-8648.	2.7	25

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37	Super water-absorbing new material from chitosan, EDTA and urea. Carbohydrate Polymers, 2015, 134, 337-343.	5.1	53
38	Immobilization of Î±-amylase on gum acacia stabilized magnetite nanoparticles, an easily recoverable and reusable support. Journal of Molecular Catalysis B: Enzymatic, 2013, 96, 6-13.	1.8	64
39	Synthesis of block and graft copolymers of styrene by raft polymerization, using dodecylâ€based trithiocarbonates as initiators and chain transfer agents. Journal of Polymer Science Part A, 2013, 51, 1066-1078.	2.5	20
40	Epoxidized natural rubberâ€“magnetite nanocomposites for oil spill recovery. Journal of Materials Chemistry A, 2013, 1, 868-876.	5.2	68
41	N,Nâ€²-(1,4-Phenylene)bis(2-bromo-2-methylpropanamide). Acta Crystallographica Section E: Structure Reports Online, 2012, 68, o811-o811.	0.2	1
42	Synthesis of graft copolymers onto styrenic polymer backbone via â€œgrafting fromâ€• raft process. Journal of Polymer Science Part A, 2012, 50, 4772-4782.	2.5	6
43	Controlled radical polymerization of tertâ€butyl acrylate at ambient temperature: Effect of initiator structure and synthesis of amphiphilic block copolymers. Journal of Polymer Science Part A, 2012, 50, 996-1007.	2.5	6
44	Synthesis of fluorescent, dansyl endâ€functionalized PMMA and poly(methyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 467 Td (methacrylat Journal of Polymer Science Part A, 2012, 50, 1491-1502.	2.5	8
45	Synthesis and Morphological Study of Thick Benzyl Methacrylateâ€“Styrene Diblock Copolymer Brushes. Langmuir, 2011, 27, 13284-13292.	1.6	17
46	Controlled polymerization of carbazoleâ€based vinyl and methacrylate monomers at ambient temperature: A comparative study through ATRP, SET, and SETâ€RAFT polymerizations. Journal of Polymer Science Part A, 2011, 49, 1021-1032.	2.5	26
47	Spontaneous Cu(I)Brâ€“PMDETAâ€mediated polymerization of isobornyl methacrylate in heterogeneous aqueous medium at ambient temperature. Journal of Polymer Science Part A, 2011, 49, 2165-2172.	2.5	11
48	Non-universal behavior well above the percolation threshold and thermal properties of core-shell-magnetite-polymer fibers. Journal of Applied Physics, 2011, 110, 113718.	1.1	3
49	Kinetic Studies on Star Polymerization of Styrene, MA and MMA Using New Three and Four Arm Chain Transfer Agents (CTAs): The Role of R-Group Structure Present in the CTA on RAFT Polymerization. Journal of Macromolecular Science - Pure and Applied Chemistry, 2011, 48, 722-736.	1.2	5
50	3-(9H-Carbazol-9-yl)propan-1-ol. Acta Crystallographica Section E: Structure Reports Online, 2011, 67, o180-o180.	0.2	0
51	3-({[(1-Phenylethyl)sulfanyl]methanethioyl}sulfanyl)propanoic acid. Acta Crystallographica Section E: Structure Reports Online, 2011, 67, o3352-o3352.	0.2	1
52	Controlled polymerization of methacrylates at ambient temperature using trithiocarbonate chain transfer agents via SETâ€RAFTâ€“cyclohexyl methacrylate: A model study. Journal of Polymer Science Part A, 2010, 48, 5329-5338.	2.5	19
53	2-Oxo-4-trifluoromethyl-2H-chromen-7-yl 2-bromo-2-methylpropanoate. Acta Crystallographica Section E: Structure Reports Online, 2010, 66, o1606-o1606.	0.2	1
54	2-Bromo-2-methyl-N-(4-methyl-2-oxo-2H-chromen-7-yl)propanamide. Acta Crystallographica Section E: Structure Reports Online, 2010, 66, o2007-o2007.	0.2	1

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55	2,4,6-Trimethyl-3,5-bis[(phenylcarbonothioyl)sulfanylmethyl]benzyl benzenecarbodithioate. Acta Crystallographica Section E: Structure Reports Online, 2010, 66, o1382-o1382.	0.2	1
56	Exploration of Novel Pyrene Labeled Amphiphilic Block Copolymers: Synthesis Via ATRP, Characterization and Properties. Journal of Macromolecular Science - Pure and Applied Chemistry, 2010, 47, 918-926.	1.2	1
57	Synthesis of poly (benzyl methacrylate)/Mg-phyllosilicate nanocomposites by surface-initiated ambient temperature ATRP. Applied Clay Science, 2010, 48, 300-306.	2.6	8
58	Synthesis of Polymer Grafted Magnetite Nanoparticle with the Highest Grafting Density via Controlled Radical Polymerization. Nanoscale Research Letters, 2009, 4, 1090-102.	3.1	46
59	Ambient temperature Atom Transfer Radical copolymerization of tetrahydrofurfuryl methacrylate and methyl methacrylate: Reactivity ratio determination. European Polymer Journal, 2009, 45, 2685-2694.	2.6	22
60	Arborescent Polystyrene via Ambient Temperature ATRP: Toward Ordered Honeycomb Microstructured Templates. Macromolecules, 2009, 42, 2300-2303.	2.2	21
61	Amphiphilic polystyrene-graft-poly(N,N-dimethylamino-2-ethyl methacrylate) hydrogels synthesized via room temperature ATRP: Studies on swelling behaviour and dye sorption. Reactive and Functional Polymers, 2008, 68, 967-973.	2.0	23
62	Grafting of Poly(methyl methacrylate) Brushes from Magnetite Nanoparticles Using a Phosphonic Acid Based Initiator by Ambient Temperature Atom Transfer Radical Polymerization (ATATRP). Nanoscale Research Letters, 2008, 3, .	3.1	43
63	Rapid ambient temperature atom transfer radical polymerization of tertâ€butyl acrylate. Polymer International, 2008, 57, 479-487.	1.6	10
64	Reversible additionâ€fragmentation chain transfer (RAFT) polymerization of styrene using novel heterocycleâ€containing chain transfer agents. Polymer International, 2008, 57, 365-371.	1.6	10
65	Synthesis of Silver Nanoparticles Using a Novel Graft Copolymer and Enhanced Particle Stability via a â€œPolymer Brush Effectâ€• Macromolecular Rapid Communications, 2008, 29, 737-742.	2.0	21
66	Microwave hall mobility studies on polymerâ€“metal oxide nanocomposites. Journal of Applied Polymer Science, 2008, 107, 1967-1972.	1.3	1
67	Grafting of PMMA brushes on titania nanoparticulate surface via surface-initiated conventional radical and â€œcontrolledâ€•radical polymerization (ATRP). Journal of Nanoparticle Research, 2008, 10, 415-427.	0.8	39
68	A Robust Method for the Immobilization of Polymer Molecules on SiO₂ Surfaces. Macromolecules, 2008, 41, 873-878.	2.2	37
69	Ambient Temperature Polymerization of Styrene by Single Electron Transfer Initiation, Followed by Reversible Addition Fragmentation Chain Transfer Control. Macromolecules, 2008, 41, 262-265.	2.2	75
70	Giant magnetoresistance of Fe3O4-polymethylmethacrylate nanocomposite aligned fibers via electrospinning. Journal of Applied Physics, 2007, 101, 114317.	1.1	17
71	Grafting of methacrylates and styrene on to polystyrene backbone via a â€œgrafting fromâ€•ATRP process at ambient temperature. Journal of Polymer Science Part A, 2007, 45, 3818-3832.	2.5	30
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73	Ambient temperature ATRP of benzyl methacrylate as a tool for the synthesis of block copolymers with styrene. Journal of Polymer Science Part A, 2006, 44, 2848-2861.	2.5	14
74	Growth of poly(methyl methacrylate) brushes on silicon surfaces by atom transfer radical polymerization. Journal of Polymer Science Part A, 2006, 44, 1758-1769.	2.5	45
75	Surface-Initiated Atom Transfer Radical Polymerization of Methyl Methacrylate from Magnetite Nanoparticles at Ambient Temperature. Journal of Nanoscience and Nanotechnology, 2006, 6, 2018-2024.	0.9	15
76	Synthesis and Characterization of Block Copolymers of P(MMAâ€bâ€nâ€BAâ€bâ€MMA) via Ambient Temperature ATRP of MMA. Journal of Macromolecular Science - Pure and Applied Chemistry, 2005, 42, 471-484.	1.2	7
77	Synthesis and Properties of Polystyrene Carrying Pendant Hydroxybarbiturate Groups. Journal of Macromolecular Science - Pure and Applied Chemistry, 2005, 42, 189-202.	1.2	1
78	ATRP of methyl methacrylate using a novel binol ester-based bifunctional initiator. Journal of Polymer Science Part A, 2004, 42, 902-915.	2.5	26
79	Very rapid copper-mediated atom transfer radical polymerization of benzyl methacrylate at ambient temperature. Journal of Polymer Science Part A, 2004, 42, 1053-1057.	2.5	31
80	Photochemical attachment of polymers on planar surfaces with a covalently anchored monolayer of a novel naphthyl ketone photochemical radical generator. Journal of Polymer Science Part A, 2004, 42, 5413-5423.	2.5	4
81	Synthesis and characterization of statistical copolymers of styrene and 4-(1-hydroxyalkyl)styrene. Journal of Applied Polymer Science, 2004, 92, 1902-1914.	1.3	2
82	Synthesis and Characterization of a Novel, Waterâ€Soluble Polymer with Pendant Groups Carryingcisâ€Platinum Complex. Journal of Macromolecular Science - Pure and Applied Chemistry, 2004, 41, 859-871.	1.2	1
83	Facile Synthesis of ABC and CBABC Multiblock Copolymers of Styrene,tert-Butyl Acrylate, and Methyl Methacrylate via Room Temperature ATRP of MMA. Macromolecules, 2003, 36, 1039-1046.	2.2	92
84	Polymer Brushes via ATRP: Role of Activator and Deactivator in the Surface-Initiated ATRP of Styrene on Planar Substrates. Macromolecular Rapid Communications, 2002, 23, 277-281.	2.0	108
85	Controlled Growth of PMMA Brushes on Silicon Surfaces at Room Temperature. Macromolecular Rapid Communications, 2002, 23, 612.	2.0	106
86	Synthesis and characterization of water-soluble barbiturate- and thiobarbiturate-functionalized polystyrene. Journal of Polymer Science Part A, 2002, 40, 731-737.	2.5	11
87	Investigation of the Mercat Reaction as a Tool for the Introduction of Nitrogen Surface Functionality on Linear Low-Density Polyethylene (LLDPE) and Polypropylene (PP). Langmuir, 2001, 17, 3368-3374.	1.6	14
88	A study of the photopolymerization kinetics of methyl methacrylate using novel benzophenone initiators. Polymer International, 2001, 50, 897-905.	1.6	17
89	Synthesis and characterization of nitroglycerin-functionalized polystyrene. Journal of Polymer Science Part A, 2001, 39, 1203-1215.	2.5	12
90	Intercalative redox polymerization and characterization of poly(4-vinylpyridine)-vermiculite nanocomposite. Journal of Applied Polymer Science, 2001, 82, 555-561.	1.3	15

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91	Intercalative redox polymerization and characterization of poly(n-vinyl-2-pyrrolidinone) in the gallery of vermiculite: A novel inorganic-organic hybrid material. Journal of Applied Polymer Science, 2000, 76, 1825-1830.	1.3	14
92	A practical route for the preparation of poly(4-hydroxystyrene), a useful photoresist material. Journal of Polymer Science Part A, 2000, 38, 453-461.	2.5	38
93	A solvent-free method for the synthesis of block copolymers with fluorinated pendant groups by a hydrosilylation reaction. Journal of Polymer Science Part A, 2000, 38, 1179-1183.	2.5	14
94	A NOVEL AND SIMPLE METHOD OF PREPARATION OF POLY(STYRENE-B-2-VINYLPYRIDINE) BLOCK COPOLYMER OF NARROW MOLECULAR WEIGHT DISTRIBUTION: LIVING ANIONIC POLYMERIZATION FOLLOWED BY MECHANISM TRANSFER TO CONTROLLED/â€œLIVINGâ€•RADICAL POLYMERIZATION (ATRP). Journal of Macromolecular Science - Pure and Applied Chemistry, 2000, 37, 621-631.	1.2	20
95	PHOTOCHEMICAL SYNTHESIS AND CHARACTERIZATION OF HYPERCROSSLINKED POLYSTYRENE, A NOVEL POROUS ORGANIC MATERIALâ€. Journal of Macromolecular Science - Pure and Applied Chemistry, 1999, 36, 1923-1933.	1.2	2
96	Adsorption of Alginic Acid and Chondroitin Sulfate-A to Amine Functionality Introduced on Polychlorotrifluoroethylene and Glass Surfaces. Macromolecules, 1999, 32, 4106-4112.	2.2	13
97	Strengthening Polymer Interfaces with Triblock Copolymers. Macromolecules, 1997, 30, 549-560.	2.2	46
98	Surface Segregation Studies of Fluorine-Containing Diblock Copolymersâ€. Macromolecules, 1996, 29, 1229-1234.	2.2	231
99	Selective Hydrogenation of Phenylacetylene Using Block Copolymer Additional Poisoning Agent. Chemistry Letters, 1996, 25, 235-236.	0.7	5
100	Block copolymers with low surface energy segments: siloxane- and perfluoroalkane-modified blocks. Polymer, 1995, 36, 1321-1325.	1.8	56
101	Concentration Profiles of End-Grafted, Diblock and Triblock Polymers in the Melt: Near-Wall Structure and Effects of Segment-Wall Interaction. Europhysics Letters, 1995, 32, 211-216.	0.7	17
102	Neutron Reflectivity Studies of End-Grafted Polymers. Macromolecules, 1995, 28, 492-499.	2.2	39
103	Spontaneous adsorption of polystyrene from solution to the cyclohexane-poly(vinylidene fluoride) interface. Macromolecules, 1991, 24, 5886-5888.	2.2	7
104	End group effect in polymer adsorption: Competitive adsorption of carboxylic acidâ€terminated and unfunctionalized polystyrene. Journal of Chemical Physics, 1990, 92, 6970-6971.	1.2	0
105	Trends in adsorption of end-functionalized polystyrenes by thin-layer chromatography. Macromolecules, 1990, 23, 4344-4346.	2.2	15
106	Preparation of gels of Chitosan through Hydrothermal Reaction in the Presence of Malonic Acid and Cinnamaldehyde: Characterization and Antibacterial Activity. New Journal of Chemistry, 0, , .	1.4	2