

# Chayan Das

## List of Publications by Year in descending order

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34  
papers

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citations

471509  
17  
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642732  
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docs citations

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times ranked

516  
citing authors

#	ARTICLE	IF	CITATIONS
1	Rubber composites based on silane-treated silica and nitrile rubber. <i>Journal of Elastomers and Plastics</i> , 2015, 47, 248-261.	1.5	55
2	Ruthenium Complexes of 2-[(4-(Arylamino)phenyl)azo]pyridine Formed via Regioselective Phenyl Ring Amination of Coordinated 2-(Phenylazo)pyridine: Isolation of Products, X-ray Structure, and Redox and Optical Properties. <i>Inorganic Chemistry</i> , 2003, 42, 198-204.	4.0	53
3	Synthesis and chemical modification of crystalline nanocellulose to reinforce natural rubber composites. <i>Polymers for Advanced Technologies</i> , 2020, 31, 3059-3069.	3.2	48
4	Controlled Release of Metal Ion Cross-Linkers and Development of Self-Healable Epoxidized Natural Rubber. <i>ACS Applied Polymer Materials</i> , 2021, 3, 1190-1202.	4.4	35
5	Reinforcing efficiency and compatibilizing effect of sol-gel derived in situ silica for natural rubber/chloroprene rubber blends. <i>RSC Advances</i> , 2014, 4, 58816-58825.	3.6	27
6	Reinforced chloroprene rubber by in situ generated silica particles: Evidence of bound rubber on the silica surface. <i>Journal of Applied Polymer Science</i> , 2016, 133, .	2.6	27
7	Metal-Promoted Aromatic Ring Amination and Deamination Reactions at a Diazo Ligand Coordinated to Rhodium and Ruthenium. <i>Inorganic Chemistry</i> , 2002, 41, 7125-7135.	4.0	26
8	Effect of sol-gel derived in situ silica on the morphology and mechanical behavior of natural rubber and acrylonitrile butadiene rubber blends. <i>Journal of Sol-Gel Science and Technology</i> , 2012, 63, 501-509.	2.4	24
9	Isolation and characterization of iridium(III) and ruthenium(II) complexes of 2-(arylamino)pyridine and studies of amine fusion reactions at the coordinated diazo-ligand. Electronic supplementary information (ESI) available: Fig. S1: <sup>1</sup> H NMR spectra of 1a and tcc-[RuCl <sub>2</sub> (HL1a) <sub>2</sub> ] in CDCl <sub>3</sub> . Inset: Methyl resonances of 1b. Fig. S2: <sup>13</sup> C NMR spectra of 1a and tcc-[RuCl <sub>2</sub> (HL1a) <sub>2</sub> ] in CDCl <sub>3</sub> . Fig. S3: Cyclic voltammogram of 1a in CH <sub>3</sub> CN. Fig. S4: Cyclic voltammogram of 2a in CH <sub>3</sub> CN. See <a href="http://www.rsc.org/suppdata/doi/10.1039/B407209">http://www.rsc.org/suppdata/doi/10.1039/B407209</a> . <i>Dalton Transactions</i> , 2004, . 2655.	3.3	23
10	Controlled growth of in situ silica in a NR/CR blend by a solution sol-gel method and the studies of its composite properties. <i>RSC Advances</i> , 2015, 5, 53559-53568.	3.6	22
11	Ruthenium complexes of quinone related N-aryl-1,2-diimines. Metal mediated synthesis, X-ray structure and chemical reaction. Electronic supplementary information (ESI) available: partial energy level diagram and molecular orbitals of 1c. See <a href="http://www.rsc.org/suppdata/nj/b2/b203956g/">http://www.rsc.org/suppdata/nj/b2/b203956g/</a> . <i>New Journal of Chemistry</i> , 2002, 26, 1409-1414.	2.8	20
12	Compatibilization of natural rubber/nitrile rubber blends by sol-gel nano-silica generated by in situ method. <i>Journal of Sol-Gel Science and Technology</i> , 2016, 80, 548-559.	2.4	20
13	Development of highly reinforced acrylonitrile butadiene rubber composites via controlled loading of sol-gel titania. <i>Polymer</i> , 2017, 109, 25-37.	3.8	19
14	Effect of silane integrated sol-gel derived in situ silica on the properties of nitrile rubber. <i>Journal of Applied Polymer Science</i> , 2014, 131, .	2.6	18
15	Osmium(II) complexes of 2-[(arylamido)phenylazo]pyridines. New examples of deamination reactions. X-ray structure and redox properties. Electronic supplementary information (ESI) available: partial energy level diagrams and molecular orbitals of 1a, 2a and 4a, UV-vis spectra of 4 complexes and cyclic voltammograms of 1b, 2b and 4b. See <a href="http://www.rsc.org/suppdata/nj/b1/b108507g/">http://www.rsc.org/suppdata/nj/b1/b108507g/</a> . <i>New Journal of Chemistry</i> , 2002, 26, 222-228.	2.8	17
16	Incorporation of titania nanoparticles in elastomer matrix to develop highly reinforced multifunctional solution styrene butadiene rubber composites. <i>Polymer</i> , 2019, 162, 1-10.	3.8	17
17	In Situ Zirconia: A Superior Reinforcing Filler for High-Performance Nitrile Rubber Composites. <i>ACS Omega</i> , 2020, 5, 7751-7761.	3.5	17
18	Exploration of the ESIPT process in a newly designed potential bioactive thiosemicarbazone Schiff base: Spectroscopic analysis accompanied by molecular optimization and crystallographic study. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2019, 371, 81-90.	3.9	15

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19	ESIPT reaction of potential bioactive heterocyclic Schiff base: Atomic visualization coupled with in vitro spectroscopy. Journal of Photochemistry and Photobiology A: Chemistry, 2016, 326, 41-49.	3.9	12
20	Studies on mechanical, rheological, thermal and morphological properties of <i>in situ</i> silica-filled butadiene rubber composites. Plastics, Rubber and Composites, 2018, 47, 345-351.	2.0	12
21	Transition Metal Promoted Oxidative C&N Fusion Reactions of Aromatic Amines and Their Coordination Chemistry. Comments on Inorganic Chemistry, 2003, 24, 137-163.	5.2	10
22	Development of multifunctional heterocyclic Schiff base as a potential metal chelator: a comprehensive spectroscopic approach towards drug discovery. Journal of Biological Inorganic Chemistry, 2017, 22, 47-59.	2.6	10
23	Development and characterization of graphitic carbon nitride as nonblack filler in natural rubber composites. Journal of Applied Polymer Science, 2019, 136, 48136.	2.6	10
24	FUNCTIONALIZATION OF EPDM RUBBER TOWARD BETTER SILICA DISPERSION AND REINFORCEMENT. Rubber Chemistry and Technology, 2019, 92, 219-236.	1.2	10
25	Synthesis, structure, redox and spectra of green iridium complexes of tridentate azo-aromatic ligands. Journal of Chemical Sciences, 2007, 119, 3-9.	1.5	9
26	Synthesis, structure and redox properties of isomeric [RuCl <sub>2</sub> (L) <sub>2</sub> ] (L=N-aryl-1,2-arylenediimine) complexes formed by the oxidative dimerization of coordinated aromatic amines. Polyhedron, 2002, 21, 97-104.	2.2	7
27	Enhancing the material performance of chloroprene rubber (CR) by strategic incorporation of zirconia. Materials Advances, 2022, 3, 2434-2446.	5.4	7
28	Physicochemical properties and in-vitro release study of CFLE-chitosan microsphere beads. Journal of Polymer Research, 2019, 26, 1.	2.4	5
29	Filler&filler and rubber&filler interactions in nitrile rubber/silica composites. Emerging Materials Research, 2014, 3, 46-51.	0.7	4
30	Electronic Applications of Chloroprene Rubber and Its Composites. Springer Series on Polymer and Composite Materials, 2016, , 279-304.	0.7	3
31	EXPLORING THE SUITABILITY OF SOL-GEL&SYNTHESIZED NANO ZnO AS A CURE ACTIVATOR IN CARBON BLACK& AND SILICA-FILLED NR COMPOSITES. Rubber Chemistry and Technology, 2020, , .	1.2	2
32	Highly efficient hydrotalcite-based adsorbent for aqueous-phase cationic dye removal: structural features, kinetics and isotherm study. International Journal of Environmental Science and Technology, 2023, 20, 565-578.	3.5	2
33	REINFORCEMENT EFFECT OF IN SITU DEVELOPED ITACONIC ACID BASED METAL SALT NANO-CRYSTALS IN ACRYLONITRILE-BUTADIENE COPOLYMER. Rubber Chemistry and Technology, 2021, 94, 462-475.	1.2	1
34	Transition Metal Promoted Oxidative C&N Fusion Reactions of Aromatic Amines and Their Coordination Chemistry. ChemInform, 2004, 35, no.	0.0	0