## CSIR-CLRI Publications for the period of 01.01.2024 to 31.12.2024 (Indexed in SCI-Expanded)

SL. NO	AUTHOR	TITLE	SOURCE	DOC. TYPE	YEAR	VOL	ISS	BEGN. PAGE	END. PAGE	ARTICLE NO.
1.	Mozhiarasi, V; Natarajan, TS	Bael fruit shell-derived activated carbon adsorbent: effect of surface charge of activated carbon and type of pollutants for improved adsorption capacity	Biomass Conversion and Biorefinery	Article	2024	14	7	8761	8774	
2.	Meganathan, MK; Sundararajan, S; Abu Javid, M; Ramalingam, S	Biocompatible Thermally Responsive Vinyl Sulfone Silica Nanocapsules as Stabilizing and Softening Agents for Metal- Free Leather Production	ACS Applied Nano Materials	Article	2024	7	9	10168	10181	
3.	Singh, P; Maurya, KRA; Dixit, M	Unraveling the Contribution of Cationic and Anionic Redox in Na-Rich Cathode Materials through First-Principles Calculations		Article	2024	9	10	7065	7074	
4.	Singh, P; Dixit, M	Stabilizing Anionic Redox and Tuning Its Extent in Na-Rich Cathode Materials through Electronic Structure Engineering	Journal of Physical Chemistry C	Article	2024	128	22	8883	8893	
5.	Sundar, VJ	Novel biocompatible denture material incorporating type I collagen with improved functional properties for oral health	Odontology	Article	2024	112	2	472	478	
6.	Mukherjee, S; Reddy, SMM; Shanmugam, G	A bio-inspired silkworm 3D cocoon-like hierarchical self-assembled structure from π-conjugated natural aromatic amino acids	Soft Matter	Article	2024	20	8	1834	1845	

7.	Aarthy, M; Hemalatha, T; Suryalakshmi, P; Vinoth, V; Mercyjayapriya, J; Shanmugam, G; Ayyadurai, N	Biomimetic design of fibril- forming non-immunogenic collagen like proteins for tissue engineering		Article	2024	266				130999
8.	Benseelia, BJ; Felshia, SC; Sundar, VJ; Gnanamani, A	Microencapsulation of Essential Oils for Antimicrobial Foot Bed	Leather Chemists Association	Article	2024	119	8	155	164	
9.	Sivakumar, V	Analysis, Estimation and Minimization of Carbon Footprint in Leather Processing Unit Operations: A Systematic Approach	Journal of the Society of Leather Technologists and Chemists	Article	2024	108	3			
10.	Pounsamy, M; Rajendran, G; Ramanujam, A; Priyadharsini, V; Ganesan, S	Sustainable valorization of protein-rich tannery saline wastewater: Protein hydrolysate synthesis via protease and Fe 3 O 4 porous carbon catalyst	Journal of Water Process Engineering	Article	2024	60				105149
11.	Sivakumar, V	Comprehensive analysis of minimizing carbon footprint in Leather drying with theory and practice: A sustainable approach	Processing-Process	Article	2024	195				109620
12.	Venugopal, S; Khambhaty, Y; Abu, JM; Chandrasekaran, S	Utilization of phyto-based material for preservation of raw skin: A less salt and cleaner biointervention	and Sustainability	Article	2024	26	3	7529	7546	
13.	Banerjee, K; Mathew, C; Inbasekar, C; Fathima, NN	Mechanistic insights on stabilization and destabilization effect of ionic liquids on type I collagen fibrils	Behavior of Biomedical Materials	Article	2024	160				106772
14.	Banerjee, K; Rasheeda, K; Tarannum, A; Fathima, NN	Structural and mechanical behavior of type-I collagen fibrils in presence of induced electrostatic interactions through ionic liquids	Biophysical Chemistry	Article	2024	307				107192

15.	Sathish, M; Manna, S; Krishna, NG	Expanding the Practical Approach for Salt-Free Tanning: A Chrome-free System	Journal of the American Leather Chemists Association	Article	2024	119	10	279	289	
16.	Ramamoorthy, T; Soloman, AM; Annamalai, D; Thiruppathi, V; Srinivasan, P; Masilamani, D; Gopinath, A; Madhan, B	Facile crosslinking of PVA scaffolds using quercetin for biomaterial applications	Materials Letters	Article	2024	364				136307
17.	Ganesamoorthy, S; Prabhakaran, H; Kanemoto, SO; Cheumani, AMY; Lakshmi, MS	Titanium nanoparticles bonded polyacrylates with enhanced properties fabricated using DLP 3D printing	Journal of Polymer Research	Article	2024	31	1			21
18.	Minisha, S; Gopinath, A; Mukherjee, S; Srinivasan, P; Madhan, B; Shanmugam, G	Impact of SiO2 nanoparticles on the structure and property of type I collagen in three different forms	Spectrochimica Acta Part A- Molecular and Biomolecular Spectroscopy	Article	2024	305				123520
19.	Chakrabarti, S; Vasagam, SN; Ananthakrishnan, B; Sornam, M	Artificial Intelligence techniques enabled insights into Leather Defects	Indian Journal of Engineering and Materials Sciences	Article	2024	31	4	487	504	
20.	Sivaganesan, P; Elanchezhian, C; Bansal, D; Sarkar, J; Chaudhuri, S	A convenient proline catalysed Paal-Knorr synthesis of highly substituted pyrrole: construction of a pyrrolo[2,1-a]isoquinoline scaffold	New Journal of Chemistry	Article	2024	48	47	20034	20040	
21.	Srivastava, R; Alam, MS	Molecular interaction of human serum albumin with gemini surfactant, 1,6 bis (N,N-hexadecyl dimethyl ammonium) bromide: Influence of micelles and pH	Journal of Molecular Liquids	Article	2024	399				124445
22.	Pavithra, E; Kannadasan, S; Shanmugam, P	I2/CAN 2 /CAN as an efficient reagent for the direct oxidation of tertiary Csp3-H sp3-H to Csp3-OH: sp3-OH: Synthesis of bis(N-methyl-7-azaindol-3-yl) N-methyl-7-azaindol-3-yl)	Tetrahedron Letters	Article	2024	148				155239

		(phenyl) methanol from 3,3'- (phenyl '-(phenyl methylene)- bis(N-methyl-7-azaindole) N- methyl-7-azaindole)								
23.	Khambhaty, Y; Ramya, KR; Alagamuthu, T	Exploring medicinal potential of Bixa orellana L. root extract: Synthesis and analysis of silver nanoparticles	Indian Journal of Experimental Biology	Article	2024	62	12	1001	1009	
24.	Subbiah, N; Palanisamy, T	Harnessing Protein Waste into Reduced Graphitic Carbon Oxide-Copper-Collagen Nanocomposite for Visible Light Photocatalytic Degradation of Nano Plastics	Advanced Sustainable Systems	Article	2024	8	7			
25.	Madhan, S; Denise, RM; Prasanna, R; Mandal, S; Kanth, SV	Influence of Polyurethane Binders on the Surface Properties of Finished Leathers: Part 1-Function as a Sealing Coat	Journal of the American Leather Chemists Association	Article	2024	119	3	295	302	
26.	Meganathan, MK; Ramalingam, S	Green Nanoengineered Fabrics: Waste-Derived Polyphenol-Zinc@ Silica Core- Shell Reactive Janus Nanoparticles for Functional Fabrics	ACS Applied Materials & Interfaces	Article	2024	16	30	40004	40017	
27.	Arivalagan, M; Poornima, R; Sobana, S; Panda, RC; Sujatha, ; Mythily, M; Atanu, P	Fault Tolerant Control of a Batch Reactor-A Case Study for Decomposition of Di-Cumyl- Peroxide		Article	2024	43	2	854	874	
28.	Rajendran, S; Bakthavatchalam, V; Kanagaraj, J; Panda, RC; Tamilselvi, A	A green chemistry approach through oxidative agent in combination with protease for dehairing: an enhanced path towards sustainability		Article	2024	81	10	8953	8977	
29.	Preethi, RK; Kannadasan, S; Shanmugam, P	One-Pot Triple and Mixed Double Michael Addition of	Chemistryselect	Article	2024	9	16			e2023047 05

		Activated Alkenes to 2-Oxindole and 7-Aza-2-Oxindole: Synthesis of C-3/N-Functionalized Carbon Rich 2-Oxindole and 7-Aza-2-Oxindole Derivatives								
30.	Muralidharan, V; Jebathomas, CRT; Sundaramoorthy, S; Madhan, B; Palanivel, S	Preparation and evaluation of novel biodegradable Kombucha cellulose-based multi-layered composite tableware	Products	Article	2024	215				118629
31.	Elavarasan, P; Kannadasan, S; Shanmugam, P	I2/CAN as a Mild and Efficient Reagent for Oxidative Csp <sup>3</sup> -Csp <sup>2</sup> Cleavage of 3,3'-Bis-7-azaindolylmethane: A Rapid One-Pot Access to 3-Formyl and 3-lodo-7-azaindoles	European Journal of Organic Chemistry	Article	2024	27	4			
32.	Murali, P; Yananmala, MT; Indrakumar, J; Balan, P; Solaimuthu, A; Vijayan, AN; Gopi, J; Srinivasan, A; Korrapati, PS	Interaction of Multifunctional MoO3 Nanoparticles with Dermal Fibroblasts for Treatment of Chronic Wounds	ACS Applied Nano Materials	Article	2024	7	3	3300	3313	
33.	Duraisamy, DK; Reddy, SMM; Saveri, P; Deshpande, AP; Shanmugam, G	A Unique Temperature-Induced Reverse Supramolecular Chirality-Assisted Gel-to-Gel Transition	Macromolecular Rapid Communications	Article	2024	45	10			
34.	Ravishankar, K; Shelly, K; Sreekumar, S; Sivan, S; Kiran, MS; Lobo, NP; Jaisankar, SN; Raghavachari, D	Microwave-assisted synthesis of crosslinked ureido chitosan for hemostatic applications	International Journal of Biological Macromolecules	Article	2024	260				129648
35.	Khambhaty, Y; Samidurai, S	An insight into the microbiome associated with the damage of raw animal hide and skin-primarily protein, during leather making	International Journal of Biological Macromolecules	Review	2024	264				130640

36.	Thirunavukarasu, N; Panda, RC; Panda, A; Kalaivani, K	Parametric Identification of a Countercurrent Aqueous Hydrolysis Process for the Production of Glycerine under Higher Pressure and Temperature	Chemical Engineering & Technology	Article	2024	47	3	455	466	
37.	Sarkar, J; Samanta, D; Chaudhuri, S; Angeline, J; Kumari, KGA; Jaisankar, SN	Harnessing leather waste in polymer matrix for sustainable smart shape-stable phase change materials	Journal of Applied Polymer Science	Article	2024	141	29			
38.	Unnikrishnan, AC; Das, BK; Saveri, P; Mani, E; Deshpande, AP; Shanmugam, G	Efficiency Enhancement in Peptide Hydrogelators: The Crucial Role of Side Chain Hydrogen Bonding Over Aromatic $\pi$ - $\pi$ Interactions	Langmuir	Article	2024	40	46	24405	24418	
39.	Duraisamy, DK; Chellani, S; Saveri, P; Deshpande, AP; Shanmugam, G	Boosting Supramolecular Gelation Efficiency and Properties: Ionic Strength as a Key to Superior Hydrogels	Langmuir	Article	2024	40	49	26114	26124	
40.	Ramalingam, S; Balamurugan, K; Fathima, NN	Greener Solvent Assistant Dyeing: Harnessing Ionic Liquids for Eco-Friendly Tone- in-Tone Dyeing on All Leather Types	ACS Sustainable Chemistry & Engineering	Article	2024	12	27	10102	10117	
41.	Chowdhury, C; Karthikraja, E; Subramanian, V	DFT and machine learning guided investigation into the design of new dual-atom catalysts based on α-2 graphyne	Physics		2024	26	38	25143	25155	
42.	Rajendiran, N; Ganesan, S; Velmurugan, N; Venkatachalam, SS	Synergistic effect of biogas production from co-digestion of fish and vegetable market wastes and kinetic modelling	Biomass Conversion and Biorefinery	Article	2024	14	11	12329	12341	
43.	Suresh, M; Pravina, R; Sivasamy, A	Facile synthesis of MoS2 nanoparticles anchored graphene nanocomposite for	Journal of Molecular Structure	Article	2024	1305				137760

		enhanced photocatalytic activity under solar irradiation								
44.	Gogoi, A; Dixit, M; Pal, S	Mechanistic Insight of High- Valent First-Row Transition Metal Complexes for Dehydrogenation of Ammonia Borane	Journal of Physical Chemistry A	Article	2024	128	37	7804	7815	
45.	Madhan, S; Wakaso, M; Ramalingam, S; Kanth, SV	Effect of Pigment-Acrylic Binder Ratio on the Surface and Physical Properties of Resin Finished Leather	Leather Chemists	Article	2024	119	1	20	30	
46.	Bharadwaj, AVSLS; Ilangovan, A; Kameswari, KSB; Patle, DS; Kamsonlian, S	Ultrasound-assisted synthesis of biodiesel in the presence of a novel catalyst recovered from waste effluent/water: A minireview	Environmental Progress & Sustainable Energy	Review	2024	43	5			
47.	Radhakrishnan, P; Sivasamy, A	Photocatalytic reduction of chromium(VI) using multiwall carbon nanotubes/bismuth oxide nanocomposite under solar irradiation	Environmental Science and Pollution Research	Article	2024	31	3	4747	4763	
48.	Pavithra, N; Felshia, SC; Sundar, VJ; Gnanamani, A	Cyt b gene as a valid molecular authentication marker of cow leathers	Mitochondrion	Article	2024	78				101944
49.	Ramalingam, S; Rajendran, S; Kumaresan, A; Jayakumar, GC; Selvi, AT	Allium Cepa Peel Waste: A Sustainable Solution for Antibacterial Leather Dyeing with GS Powder Mordanting	Journal of the American Leather Chemists Association	Article	2024	119	7	107	118	
50.	Sahu, B; Das, I; Bhalla, A; Banothu, R	A Concept on Biodegradability of Fatliquors-A Sustainable and Cleaner Leather Processing	Journal of the American Leather Chemists Association	Article	2024	119	9	222	230	
51.	Kumari, P; Ahina, KM; Kannan, K; Sreekumar, S; Lakra, R; Sivagnanam, UT; Kiran, MS	In vivo soft tissue regenerative potential of flax seed mucilage self-assembled collagen aerogels	Biomedical Materials	Article	2024	19	2			25023

52.	Inbasekar, C; Fathima, NN	Multifunctional amphoteric heteropolymer for chromium free sustainable leather process	Journal of Applied Polymer Science	Article	2024	141	29			
53.	Jeyakumar, GFS; Gunasekaran, D; Manimegalai, NP; Sivagnanam, UT	Tailored thymoquinone intercalated Layered Double Hydroxide (LDH) nanocomposites to accelerate mineralization for enhanced osteogenesis	Applied Clay Science	Article	2024	252				107339
54.	Vignesh, V; Kavalappa, YP; Ponesakki, G; Madhan, B; Shanmugam, G	Lutein, a carotenoid found in numerous plants and the human eye, demonstrates the capacity to bundle collagen fibrils	International Journal of Biological Macromolecules	Article	2024	274				133389
55.	Siddiqui, M; Alam, MS; Ali, M	Preparation and characterization of novel polyols-based DESs and their use in efficient sequestration of radioactive iodine	Journal of Molecular Liquids	Article	2024	412				125883
56.	Rasheeda, K; Samyuktha, D; Fathima, NN	A molecular synergy of non- covalent interactions facilitated via theobromine modifying the self-assembly process of type I collagen	Materials Chemistry and Physics	Article	2024	325				129771
57.	Vasagam, SN; Ravikumar, B; Kavibharathi, R; Keerthana, J; Narayanan, RS; Geetika, K	Prediction of leather footwear export using learning algorithms based on ANN model	Expert Systems with Applications	Article	2024	238				121809
58.	Vinayagam, M; Babu, RS; Sivasamy, A; de Barros, ALF	Physical activation assisted porous activated carbon from Strychnos Potatorum shells for high-performance symmetric supercapacitors	Materials Letters	Article	2024	371				136961
59.	Madhu, V; Mayakrishnan, S; Muthu, J; Sekar, K; Madurai, S	Win-Win Approach Toward Chrome-Free and Chrome-Less Tanning with Waterborne Epoxy		Article	2024	12	16	6082	6092	

		Polymers: A Sustainable Way To Curb the Use of Chrome								
60.	Bakrudeen, HB; Khambhaty, Y; Lakshmi, MS; Alagumuthu, T	Preparation and evaluation of natural lipstick from beetroot ( Beta vulgaris ) extract medicated with acyclovir	Indian Journal of Chemical Technology	Article	2024	31	3	337	345	
61.	Jeyakumar, GFS; Sivagnanam, UT	Biomimetic thymoquinone incorporated nanofibrous matrix as periosteum substitute to promote bone healing	Materials Letters	Article	2024	357				135785
62.	Sahu, B; Sharma, DD; Kanimozhi, B; Vernekar, AA	Influence of Metals in Leather Processing- A Review on Significant Contribution of Metals in Leather Making	Journal of the American Leather Chemists Association	Review	2024	119	4	349	359	
63.	Saranya, K; Sundaramanickam, A; Dineshkumar, M; Thangaraj, M; Swarna, VK	Diverging Characteristics - Mercury Resistance and Antibiotic Susceptibility of Bacillus anthracis Isolated from Different Estuarine Environments	Geomicrobiology Journal	Article	2024	41	3	270	276	
64.	Stephen, K; Kumar, BVNP; Samanta, D	Immobilization of Functionalized Silica Nanoparticles to Polystyrene-block-polybutadiene-block-Polystyrene via Chlorination: Interaction Parameters and Key Properties	ACS Applied Polymer Materials	Article	2024	6	17	10168	10177	
65.	Mukherjee, C; Ghosh, A; Tamilarasi, M; Ravishankar, K; Das, AK; Selvaraj, M; Chaudhuri, S; Sarkar, J	Self-Healable Hydrogels from Vegetable Oil: Preparation, Mechanism, and Applications	Biomacromolecules	Article	2024	25	11	7323	7333	
66.	Mukherjee, C; Samanta, D; Nasar, AS; Jaisankar, SN; Sarkar, J	Preparation of Thermo- Responsive Smart and Shrinkable Bio-Composite Using Sugarcane Waste and Sustainable Polyurethane	Chemistryselect	Article	2024	9	26			e2024004 62

67.	Mukherjee, S; Sundarapandian, A; Ayyadurai, N; Shanmugam, G	Collagen Mimicry with a Short Collagen Model Peptide	Macromolecular Rapid Communications	Article	2024	45	4			
68.	Bhattacharya, R; Kanchinadham, SBK	Recovery and reuse of nitrous oxide from wastewater treatment plants - A step towards carbon neutrality	Journal of Environmental Chemical Engineering	Article	2024	12	2			112130
69.	Palanisamy, A; Palanisamy, T; Ganesan, VV	Metal Organic Framework Enzyme-Based Unhairing of Skins: A Step Toward Sustainable Leather Processing	ACS Sustainable Chemistry & Engineering	Article	2024	12	4	1645	1654	
70.	Chowdhury, C	Unlocking Potential Catalysts: A Machine Learning Approach with Bayesian and Regression Models	Chemistryselect	Article	2024	9	37			e2024008 83
71.	Madhumidha, M; Rose, PMB; Nagabalaji, V; Das, I; Srinivasan, SV	Critical assessment of biorefinery approaches for efficient management and resource recovery from water hyacinths for sustainable utilization	Reviews In Environmental Science and Bio-Technology	Review	2024	23	2	443	469	
72.	Shilpa, KK; Padmanaban, R; Sathishkumar, M; Sarkar, J	Preparation of waste- incorporated bio-smart shape- stable phase change material (FSSPCM) with responsive fluorescent properties	New Journal of Chemistry	Article	2024	48	44			
73.	Boopathi, AA; Navya, PV; Mohan, I; Ayyadurai, N; Karuppusamy, M; Easwaramoorthi, S; Roy, A; Narasimhaswamy, T; Sampath, S	Hierarchical Self-Assembly and Aggregation-Induced Emission Enhancement in Tetrabenzofluorene-Based Red Emitting Molecules	Chemistry-An Asian Journal	Article	2024	19	19			
74.	Pathmanapan, S; Muthuramalingam, A; Pandurangan, AK; Ayyadurai, N; Anandasadagopan, SK	Hyaluronic Acid-based Cell-free Composite Scaffold Promotes Osteochondral Repair In Vitro by Upregulating Osteogenic-	Advanced Engineering Materials	Article	2024	26	10			

		and Chondrogenic-Specific Gene Expressions								
75.	Sujiritha, PB; Vikash, VL; Ponesakki, G; Ayyadurai, N; Kamini, NR	Microbially induced carbonate precipitation with Arthrobacter creatinolyticus: An eco-friendly strategy for mitigation of chromium contamination	Journal of Environmental Management	Article	2024	365				121300
76.	Pratap, G; Reddy, YSK; Lobo, NP; Ramanathan, KV; Narasimhaswamy, T	<sup>13</sup> C CSA Tensors and Orientational Order of Model and Dimer Mesogens Comprising of Phenyl Benzoate	Chemphyschem	Article	2024	25	24			
77.	Ramesh, RR; Abu Javid, M; Ponnuvel, M; Rathinam, A	Sustainable utilization of agro- industrial waste for the production of chromium tanning agent through redox synthesis for leather industry: a circular economy approach	Biomass Conversion and Biorefinery	Article	2024	14	21	26965	26976	
78.	Karuppusamy, M; Panneer, SVK; Varathan, E; Ravva, MK; Easwaramoorthi, S; Subramanian, V	Design of Isoindigo-Based Small-Molecule Donors for Bulk Heterojunction Organic Solar Cell Applications in Combination with Nonfullerene Acceptors		Article	2024	128	21	4206	4224	
79.	Alam, A; Kumbhakar, B; Chakraborty, A; Mishra, B; Ghosh, S; Thomas, A; Pachfule, P	Covalent Organic Frameworks for Photocatalytic Hydrogen Peroxide Generation	ACS Materials Letters	Review	2024	6	5	2007	2049	
80.	Ambrose, B; Sathyaraj, G; Kathiresan, M	Evaluation of the complexation behaviour among functionalized diphenyl viologens and cucurbit[7] and [8]urils	Scientific Reports	Article	2024	14	1			5786
81.	Krishnan, G; Edwin, A; Kalipriyadharshini, M; Anna, A; Easwaramoorthi, S; Gokulnath, S	Rational Synthesis of Highly Stable Dithienopyrrole- Embedded BODIPYs Exhibiting Large Stokes Shift	Organic Letters	Article	2024	27	1	298	302	

82.	Chakrapani, GD; Shifana, F; Jayakumar, GC; Madhan, B	Preparation and Characterization of Decellularized ECM Hydrogel from Adipose Tissues of Hide/Skin: Unlocking Untapped Resource Potential	Journal of the American Leather Chemists Association	Article	2024	119	3	303	313	
83.	Jana, S; Gayathri, V; Samanta, D; Jaisankar, SN	Synthesis and characterization of polyurethanes using 4-bromo-1H-pyrazole as a blocking agent		Article	2024	81	4	2989	3005	
84.	Krishnamoorthy, R; Singh, M; Anaikutti, P; Pavar, MC; Selvaraj, E; Rajagopal, S; Vignesh, RB	Design, Synthesis, and Anticancer Activity of N-1 Terminal Segment of α-(2, 5,7-Tri-tert-butylindol-3-yl)alanine-Incorporated Short Peptides	Chemistryselect	Article	2024	9	9			e2023049 74
85.	Sreekumar, S; Gangaraj, KP; Kiran, MS	Modulation of angiogenic switch in reprogramming browning and lipid metabolism in white adipocytes	Biochimica Et Biophysica Acta-Molecular and Cell Biology of Lipids	Article	2024	1869	1			159423
86.	Mukherjee, C; Nath, AR; Jaisankar, SN; Sarkar, J	Advancements in Castor Oil- Derived Smart Materials: A Comprehensive Mini-Review	Chemistryselect	Review	2024	9	35			e2024008 85
87.	Natesan, V; Nasr, AI; Fathima, NN	Shape-stabilized porous activated carbon/n-eicosane as a potential material for smart leather fabrication	Diamond and Related Materials	Article	2024	142				110827
88.	Borker, P; Pole, A; Fatrekar, A	Synergistic approach: Photocatalytic hydrogen generation for curcumin hydrogenation	International Journal of Hydrogen Energy	Article	2024	78		1355	1362	
89.	Sreekumar, S; Kiran, MS	Localized trans-browning and pro-angiogenesis inductive self-assembled collagen resveratrol bio-matrix for tissue repair and regeneration in obese conditions	International Journal of Biological Macromolecules	Article	2024	263				130322

90.	Panda, A; Thirunavukarasu, N; Panda, RC	Predictive control scheme by integrating event-triggered mechanism and disturbance observer under actuator failure and sensor fault	Proceedings of the Institution of Mechanical Engineers Part I-Journal of Systems and Control Engineering	Article	2024	238	4	621	647	
91.	Smile, SS; Gurusamy, H; Shanmugam, P	BF3•OEt2 promoted synthesis of 9-fluorenlidene appended 2-hydrazinopyridine imines from (phenylethynyl)-fluorene and 2-hydrazinopyridine derivatives	Synthetic Communications	Review	2024	54	17	1413	1422	
92.	Borah, RK; Singh, P; Dixit, M; Vernekar, AA	A Ru atomic cluster-installed Co-Co2B nanocatalyst remarkably combats product inhibition while sustaining high turnover frequency of hydrogen production	Journal of Materials Chemistry A	Article	2024	12	31	20256	20269	
93.	Kailasam, S; Sundaramanickam, A; Kanth, SV	Isotherms and kinetics of multi- heavy metal sorption by marine phosphate-solubilizing bacteria from seagrass meadow	International Journal of Environmental Science and Technology	Article	2024	21	6	5731	5742	
94.	Kanemoto, SO; Onana, PCM; Cheumani, AMY; Ndikontar, MK; Lakshmi, MS	Thermal stability of flexible polyurethane foams obtained from reactive phosphorus-containing polyols dispersed in polyethylene glycol	Iranian Polymer Journal	Article	2024	33	12	1701	1711	
95.	Biswas, C; Vijayan, V; Panda, SJ; Purohit, CS; Kiran, MS; Ghosh, R	Anti-cancer and anti-angiogenic activities of some synthetic Ni(II) thiosemicarbazone complexes	Polyhedron	Article	2024	252				116888
96.	Xavier, J; Patnaik, SK; Panda, RC	Nonlinear system identification in coherence with nonlinearity measure for dynamic physical systems-case studies	Nonlinear Dynamics	Article	2024	112	8	6475	6501	
97.	Palanisamy, D; Chockalingam, LR; Murugan, D	Microbial fuel cell for effluent treatment and sustainable power generation	Energy Sources Part A- Recovery Utilization and Environmental Effects	Article	2024	46	1	11952	11964	

98.	Chattopadhyay, T; Biswas, C; Sreekumar, S; Kiran, MS; Ghosh, R	Insights into the selective anticancer activity of [Sn IV (L)(Cl) 2 (OH 2)] [L = (E) - N, N-diethyl-2-(2-hydroxy-3-methoxybenzylidene) hydrazinecarbothioamide] at thiosemicarbazone appended tin(IV) site	Inorganic Chemistry Communications	Article	2024	165				112525
99.	Kanniyappan, H; Sundaram, MK; Ravikumar, A; Chakraborty, S; Gnanamani, A; Mani, U; Kumar, N; Muthuvijayan, V	Enhancing bone repair through improved angiogenesis and osteogenesis using mesoporous silica nanoparticle-loaded Konjac glucomannan-based interpenetrating network scaffolds	International Journal of Biological Macromolecules	Article	2024	279				135182
100.	Alam, MS; Babu, KA; Siddiq, AM	Influence of Halide Ions and Temperature on the Thermophysical Properties of Aqueous Zwitterionic Surfactant Solution	Russian Journal of General Chemistry	Article	2024	94	4	904	913	
101.	Divya, D; Ramanjaneyulu, M; Nandhagopal, M; Srinivasan, V; Thennarasu, S	A fluorescent chemosensor for selective detection of chromium (III) ions in environmentally and biologically relevant samples	Spectrochimica Acta Part A- Molecular and Biomolecular Spectroscopy	Article	2024	316				124286
102.	Shekinah, R; Kailasam, S; Mandal, S; Kanth, SV	Sustainable Finished Leather Preservation: Part II - Wattle Tannin Capped Copper Nanoparticles	Journal of the American Leather Chemists Association	Article	2024	119	2	64	70	
103.	Denise, RM; Usharani, N; Saravanan, N; Kanth, SV	In vitro and in silico approach towards antimicrobial and antioxidant behaviour of watersoluble chitosan dialdehyde biopolymers	Carbohydrate Research	Article	2024	542				109192
104.	Shekinah, R; Kailasam, S; Mandal, S; Kanth, SV	Sustainable Finished Leather Preservation: Part I - Myrobalan Capped Copper Nanoparticles	Journal of the American Leather Chemists Association	Article	2024	119	2	55	63	

105.	Renuka, M; Harini, ; Balasubramanian, S; Sridevi, J; Vaidyanathan, VG	Understanding the effect of carbon dots with size variation on collagen	Indian Journal of Chemistry	Article	2024	63	8	791	796	
106.	Akilandeswari, G; Varshashankari, V; Muthusamy, S; Aarthy, M; Thamizhvani, K; Mercyjayapriya, J; Ashokraj, S; Mohandass, P; Prem, S; Ayyadurai, N	Photocrosslinkable triple helical protein with enhanced higher-order formation for biomaterial applications		Article	2024	112	10	1632	1645	
107.	Sivaganesan, P; Subiksha, VL; Sahoo, A; Elanchezhian, C; Nataraj, G; Chaudhuri, S	A Comprehensive Review of Synthetic Approaches Toward Lamellarin D and its Analogous		Review	2024	9	37			e2024031 12
108.	Morajkar, RV; Fatrekar, AP; Vernekar, AA	Approach of a small protein to the biomimetic bis-(µ-oxo) dicopper active-site installed in MOF-808 pores with restricted access perturbs substrate selectivity of oxidase nanozyme	Chemical Science	Article	2024	15	28	10810	10822	
109.	Senthilnathan, S; Rajagopal, P; Krishnamoorthy, R; Alshuniaber, MA; Al-Anazi, KM; Abul Farah, M; Jayaraman, S; Veeraraghvan, VP; Gnanamani, A	Identifying the molecular mechanisms of action of wound healing properties of Mathan tailam and Mahamegarajanga tailam in Wistar albino rats: Evidence through IL-10/VEGF/TNF-α signalling pathways	Acta Tropica	Article	2024	258				107357
110.	Suryalakshmi, P; Sundarapandian, A; Mercyjayapriya, J; Pachaiyappan, M; Suresh, P; Valappil, S; Aarthy, M; Ayyadurai, N	Genetically encoded biocompatible anti-coagulant protein-coated coronary artery stents drive endothelialization		Article	2024	238				113908
111.	Fatrekar, AP; Morajkar, RV; Vernekar, AA	Expanding limits of artificial enzymes: unprecedented catalysis by an oxidase nanozyme in activating a	Chemical Science	Article	2024	15	36	14726	14738	

110	Oursel M. Davins D.	structural protein for covalent crosslinking and conferring remarkable proteolytic resistance		Autolo	0004	404				405540
112.	Suresh, M; Pravina, R; Shanmugavel, M; Sivasamy, A	Construction of RGO@N-ZnO nanocomposite photocatalyst for disinfection of microbes and dye degradation under visible light irradiation	Journal of the Taiwan Institute of Chemical Engineers	Article	2024	161				105510
113.	Srinidhi, VG; Mangalsana, H; Vernekar, A	Breaking Barriers in Photothermal Tumor Therapy: A Cascade of Strain-Engineered Nanozyme in Action	Chemmedchem	Review	2024	19	22			
114.	Vinayagam, M; Babu, RS; Sivasamy, A; de Barros, ALF	Influence of Biomass-derived Porous Activated Carbon on Polyaniline as Electrode Material for Supercapacitor Applications	Iranian Journal of Science	Article	2024	48	4	879	892	
115.	Choutipalli, VSK; Subramanian, V	Harnessing halogen bond donors for enhanced nitrogen reduction: a case study on metal-free boron nitride singleatom catalysts	Physical Chemistry Chemical Physics	Article	2024	26	16	12495	12509	
116.	Vinayagam, M; Babu, RS; Sivasamy, A; de Barros, ALF	Impact of carbon dioxide- assisted activation on Millettia pinnata shell-derived porous activated carbon for enhanced performance in symmetric supercapacitors	Ionics	Article	2024	30	5	3045	3054	
117.	Li, ZW; Tsuneyuki, T; Paitandi, RP; Nakazato, T; Odawara, M; Tsutsui, Y; Tanaka, T; Miyake, Y; Shinokubo, H; Takagi, M; Shimazaki, T; Tachikawa, M;	Ultrafine Spatial Modulation of Diazapyrene-Based Two-Dimensional Conjugated Covalent Organic Frameworks	Journal of the American Chemical Society	Article	2024	146	33	23497	23507	

	Suzuki, K; Kaji, H; Ghosh, S; Seki, S									
118.	Arumugam, GS; Arumugam, C; Damodharan, K; Kumar, RS; Gummadi, SN; Muthusamy, S	Thermal and mechanical properties of high-performance polyester nanobiocomposites reinforced with pre-treated sunn hemp fiber for automotive applications	International Journal of Biological Macromolecules	Article	2024	280				135591
119.	Banu, GN; Lazuli, ARSC; Ramalingam, V; Esackraj, K; Sivasankaran, RP; Choi, W; Neppolian, B	Egg Shell Mediated Ni5P4/Polypyrrole Electrocatalyst for Sustainable Water Splitting		Article	2024	39	1	750	763	
120.	Meganathan, MK; Sasikala, H; Ramalingam, S	Self-Healable UV-Triggered Silica-Polyurethane Nanocomposite-Reinforced Fabric Coating: Implications for Protective Fabrics	ACS Applied Nano Materials	Article	2024	7	24	28713	28724	
121.	Babu, MKS; Katchala, N; Natarajan, TS; Suresh, S; Kancharla, S	Nd(III) and Dy(III) extraction from discarded NdFeB magnets using TOPO-based hydrophobic eutectic solvents	Journal of Molecular Liquids	Article	2024	402				124697
122.	Chowdhury, C	Bayesian Optimization for Efficient Prediction of Gas Uptake in Nanoporous Materials	Chemphyschem	Article	2024	25	16			
123.	Padinhattath, SP; Panneer, SVK; Subramanian, V; Gardas, RL	Effective removal of personal care product residues from aqueous media using hydrophobic deep eutectic solvents: Experimental and computational approach		Article	2024	197				109891
124.	Sibi, H; Biju, J; Chowdhury, C	Advancing 2D material predictions: superior work function estimation with atomistic line graph neural networks	RSC Advances	Article	2024	14	51	38070	38078	

125.	Sharen, H; Jawahar, M; Anbarasi, LJ; Ravi, V; Alghamdi, NS; Wael, S	FDUM-Net: An enhanced FPN and U-Net architecture for skin lesion segmentation	3	Article	2024	91				106037
126.	Mayadevi, S; Kirandas, MD; Manilal, AM; Roshini, N; Mandal, S	Synthetic layered double hydroxide on biodegradable support: An efficient adsorbent for defluoridation of water	Indian Journal of Chemical Technology	Article	2024	31	1	152	161	
127.	Sreekumar, S; Vijayan, V; Gangaraj, KP; Thangasornaraja, M; Kiran, MS	Caffeine-reinforced Collagen as Localized Microenvironmental Trans-Browning Bio-Matrix for Soft Tissue Repair and Regeneration in Bariatric Condition	Advanced Biology	Article	2024	8	3			
128.	Arunachallam, P; Kumaravel, V; Gopal, SR	Purification and biochemical characterization of α-amylase from Aspergillus tamarii MTCC5152	Preparative Biochemistry & Biotechnology	Article; Data Paper	2024	54	3	444	453	
129.	Jithendra, P; Annamalai, D; Ebrahim, HA; Ibrahim, AM; El- Sherbiny, M; Rajam, AM; EL- Nablaway, M; Mohamed, JMM	Bioassessment of the inflammatory response of macrophages to collagenchitosan scaffold blended with Aloe vera	Biomass Conversion and Biorefinery	Article	2024	14	5	7197	7218	
130.	George, N; Chakraborty, S; Mary, NL; Suguna, L	Incorporating silver nanoparticles into electrospun nanofibers of casein/ polyvinyl alcohol to develop scaffolds for tissue engineering		Article	2024	267				131501
131.	Bansal, D; Nataraj, G; Sivaganesan, P; Das, MK; Chaudhuri, S	Syntheses of Novel Spirobenzazepinoindole Derivatives via Lewis-Acid Catalyzed Pictet-Spengler Cyclization	Chemistry-An Asian Journal	Article	2024	19	24			e2024010 25
132.	Pandidurai, S; Choutipalli, VSK; Subramanian, V; Sekar, G	Organocatalyzed Enantio- and Diastereoselective Formal Domino 1,3-Dipolar Cycloaddition/Rearrangement:	Organic Letters	Article	2024	26	15	2971	2975	

		Synthesis of Chiral Pyrrolo-								
		thiazine-2-carbaldehydes								
133.	Roy, BC; Ramlal, VR; Basak, D; Basak, S; Roy, S; Ghosh, S; Mahapatra, TS	Light-Emitting Coordination Polymers: Stimuli-Responsive Gels, PMMA-Based Composite Films, and UV-Shielding	Inorganic Chemistry	Article	2024	63	48	23044	23056	
134.	Mishra, VD; Pratap, G; Roy, A	Glassy relaxation in a de Vries smectic liquid crystal consisting of bent-core molecules	Physical Review E	Article	2024	109	2			24703
135.	Dineshkumar, K; Kalipriyadharshini, M; Saravanan, C; Easwaramoorthi, S	Substituent Position Dependent Photophysical Properties of Indole - Barbituric and Thiobarbituric Acid based Molecular Rotors	Chemistryselect	Article	2024	9	4			e2023017 76
136.	Shwetha, T; Thanikaivelan, P	Fabrication and Characterization of Gelatin-Chitosan-TiO2 Hybrid Nanobiocomposite Films for Adsorptive Removal of Dyes from Wastewater	Journal of the American Leather Chemists Association	Article	2024	119	12	520	531	
137.	Kumar, BVNP; Lobo, NP; Mattea, C; Stapf, S	Exploring Crystal-Phase Molecular Dynamics of the Low- Viscous Mesogen 6CHBT: A Combined FFC and High-Field NMR Relaxometry Investigation	Journal of Physical Chemistry B	Article	2024	128	16	3997	4007	
138.	Geferson, OOJ; Desire, BBP; Serge, EJ; Odogu, AN; Nsami, NJ; Antoine, E	Sustainable and cleaner production of a porous geopolymer support based on metakaolin and natural calcium oxide	Journal of Building Engineering	Article	2024	96				110638
139.	Asgari, D; Grüneberg, J; Luo, YK; Küçükkececi, H; Ghosh, S; Chevelkov, V; Fischer-Lang, S; Roeser, J; Lange, A; Dunn, B; Gradzielski, M; Thomas, A	An anionic two dimensional covalent organic framework from tetratopic borate centres pillared by lithium ions	Nature Communications	Article	2024	15	1			7031

140.	Rohini, MV; Kiruba, S; Santhanaraj, D; Nair, PP; Sudhakara, P; Singh, J; Rathinam, B; Ramkumar, V	Enhancing the Shelf Life of Edible Musa Acuminate with Biopolymer Coating	Journal of Polymer Materials	Article	2024	41	3	159	178	
141.	Nagarajan, U; Denise, RM; Kanth, S; Natarajan, S	An eco friendly approach for the development of a dipeptide based anti-TB drug nanocomposites: A greener approach in drug delivery system for pulmonary delivery	Sustainable Materials and Technologies	Article	2024	41				e01037
142.	Anbarasi, LJ; Jawahar, M; Jayakumari, RB; Narendra, M; Ravi, V; Neeraja, R	An overview of current developments and methods for identifying diabetic foot ulcers: A survey	Reviews-Data Mining and	Review	2024	14	6			
143.	Kumar, SRA; Mary, DV; Josephine, GAS; Sivasamy, A	Hydrothermally synthesized WO3:CeO2 supported gC3N4 nanolayers for rapid photocatalytic degradation of azo dye under natural sunlight		Article	2024	164				112366
144.	Swaminathan, S; Haribabu, J; Karvembu, R	From Concept to Cure: The Road Ahead for Ruthenium-Based Anticancer Drugs	Chemmedchem	Review	2024	19	23			
145.	Harini, KS; Ezhilarasan, D; Mani, U	Molecular insights on intracellular Wnt/β-catenin signaling in alcoholic liver disease		Review	2024	42	1			e3916
146.	Nagaraj, A; Raghavan, SS; Niraikulam, A; Gautham, N; Gunasekaran, K	Sanggenol B, a plant bioactive, as a safer alternative to tackle cancer by antagonising human FGFR	Journal of Biomolecular Structure & Dynamics	Article	2024	42	16	8331	8342	
147.	Priyadarshini, M; Ahmad, A; Shinde, A; Das, I; Ghangrekar, MM	Anodic degradation of salicylic acid and simultaneous bio- electricity recovery in microbial fuel cell using waste-banana- peels derived biochar- supported MIL-53(Fe)-metal-	Journal of Electroanalytical Chemistry	Article	2024	967				118451

		organic framework as cathode catalyst								
148.	Salim, NV; Madhan, B; Glattauer, V; Ramshaw, JAM	Comprehensive review on collagen extraction from food by-products and waste as a value-added material	Biological Macromolecules		2024	278				134374
149.	Ramesh, S; Rabani, I; Sivasamy, A; Kakani, V; Haldorai, Y; Seo, YS; Kim, JH; Kim, HS	Fabrication of nickel-copper sulfide nanoparticles decorated on metal-organic framework composite for supercapacitor application by hydrothermal process		Article	2024	977				173375
150.	Patel, SA; Hassan, MK; Naik, M; Mohapatra, N; Balan, P; Korrapati, PS; Dixit, M	mediated breast cancer angiogenesis in normoxia and participates in a positive feedback loop with HIF1A in hypoxia		Article	2024	130	2	184	200	
151.	Singaravelu, S; Madhan, B; Abrahamse, H; Kumar, SSD	Multifunctional embelin- poly (3-hydroxybutyric acid) and sodium alginate-based coreshell electrospun nanofibrous mat for wound healing applications		Article	2024	265				131128
152.	Duraisamy, V; Pounsamy, M; Subramani, T; Krishnamoorthy, A	Discerning the catalytic treatment of cationic dye wastewater in photoreactor comprising ternary (Co <sup>3+</sup> /Co <sup>2+</sup> )-embedded SnO2/ZnFe2O4 composite sensitive toward ultra-violet illumination	Pollution Research	Article	2024	31	13	20568	20585	
153.	Gong, P; Zhang, YB; Wang, CJ; Cui, X; Li, RZ; Sharma, S; Liu,	Residual stress generation in grinding: Mechanism and modeling		Article	2024	324				118262

	MZ; Gao, T; Zhou, ZM; Wang,									
	XM; Dambatta, YS; Li, CH					_	_			
154.	Chithra, VS; Prabu, S; Babu, G; Viswanathan, T; David, E; Logesh, K; Palanisami, N	AIE-Active Ferrocene Appended Linear (D-π-A) Aromatic Ester Chromophores: Structural, Theoretical and Effect on Phenyl Ring on Luminescence and Nonlinear Optical Properties	Chemistryselect	Article	2024	9	5			e2023042 38
155.	Jawahar, M; Anbarasi, LJ; Narayanan, S; Gandomi, AH	An attention-based deep learning for acute lymphoblastic leukemia classification	Scientific Reports	Article	2024	14	1			17447
156.	Jain, R; Majumdar, D; Chatterjee, S	Antibiotic Indexing and Heavy Metal Reduction Potential of Four Multi-metal Tolerant Bacterial Strains in Real-Time Sanitary Landfill Leachate Matrix		Article	2024	113	1			3
157.	Vembuli, T; Thiripuranthagan, S; Kumaravel, S	Enhanced removal of hazardous organic contaminants with advanced visible light-active F-doped TiO2/rGO/PVDF photocatalytic membranes	Journal of Alloys and Compounds	Article	2024	1005				175997
158.	Nagarajan, U; Naha, A; Ashok, G; Balasubramanian, A; Ramaiah, S; Kanth, S; Dusthackeer, A; Anbarasu, A; Natarajan, S	Biomolecular Interaction of Carnosine and Anti-TB Drug: Preparation of Functional Biopeptide-Based Nanocomposites and Characterization through In Vitro and In Silico Investigations	Ğ	Article	2024	10	1	567	587	
159.	Nandhagopal, M; Mala, R; Somarathinam, K; Dhakshinamurthy, D; Narayanasamy, M; Vijayan, P; Shankar, MM	Anti-fungal effects of novel N-(tert-butyl)-2-(pyridin-2-yl)imidazo[1,2-a]pyridin-3-amine derivative and it's in-vitro,	Archives of Microbiology	Article	2024	206	4			186

		in-silico, and mode of action against Candida spp.								
160.	Bhoopathy, J; Sathyaraj, WV; Yesudhason, BV; Rajendran, S; Dharmalingam, S; Seetharaman, J; Muthu, R; Murugesan, R; Raghunandhakumar, S; Anandasadagopan, SK	Haemostatic potency of sodium alginate/aloe vera/sericin composite scaffolds - preparation, characterisation, and evaluation	Artificial Cells Nanomedicine and Biotechnology	Article	2024	52	1	35	45	
161.	He, YA; Meng, ST; Zhu, HF; Duan, KJ; Duan, YM; Zhang, J; Jia, LJ; Xiang, MW; Manjunath, V; David, E; Koppala, S	Enhanced low-temperature selective catalytic reduction (SCR) activity and H2O and SO2 resistance of flower-like SmMnOx and SmMnOx-rGO catalysts	Catalysis Communications	Article	2024	187				106908
162.	Bogadi, S; Malayandi, R; Raj, PV; Anandasadagopan, SK; Parvathaneni, M; Kundu, MK; Islam, MR; Khan, FS; Tagde, P; Mondal, TK; Alexiou, A; Papadakis, M; Karri, VVSR	Silk fibroin and sericin: Multifunctional formulations for treating diabetic wound healing	European Polymer Journal	Article	2024	220				113465
163.	Pathmanapan, S; Anandasadagopan, S	Biopolymer Based Biphasic Scaffold for Efficacious Regeneration of Osteochondral Defect in Rat Model	Tissue Engineering Part A	Meeting Abstract	2024	30	15-16	S337	S338	
164.	Gunawan, M; Xu, B; Wong, M; Mendler, M; Fong, TL; Mena, E	Factors Associated with Masld and Liver Fibrosis in Foreign-Born Asianamericans with Chronic Hepatitis B Seen in two Nonacademic Hepatology Clinics in Southern California: Impact of Metabolic Features, Masld and Time Spent Living in the us	Hepatology	Meeting Abstract	2024	80		S188	S189	
165.	Dixit, A (Dixit, A); Singh, VK (Singh, VK); Ahmad, S (Ahmad, S)	Na-Rich Layered Oxide Cathode Materials for High-	Energy Materials and Devices, E-Mad 2022	Proc. Paper	2024		3	14		10.1007/9 78-981-

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	Review				2_1

<sup>\*</sup>PD=Date of Publication; PY=Year of Publication; Vol=Volume; IS=Issue; BP=Beginning Page Number; EP=Ending Page Number, DOI=Digital Object Identifier.