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DEPARTMENT OF CHEMICAL ENGINEERING
List of Publications (July 2025- June 2026)

S. No	Title of the paper	First Author & Affiliation	Remaining Authors & Affiliation as per the order in papers	Name of the Journal / Conference	Volume No, Issue No Page No Month & Year	Indexing Scopus/ SCI/ SCIE/ WoSetc	Impact factor & Quartiles (Q1 / Q2/ Q3 / Q4	Online Link of the paper (by clicking this link, paper should opened in online)
1	Mechanical and durability assessment of paver blocks incorporating electronic plastic waste and polyethylene fiber	M. Jayadurgalakshmi	A. J. Jeya Arthi, M. Goutham Priya, T. Udhaya Kumar, Alagar Karthick & **A. K. Priya**	Journal of Building Pathology and Rehabilitation	Volume 11, article number 18, (2026)	Scopus	Q2	https://link.springer.com/article/10.1007/s41024-025-00690-w
2	The promise of graphene-based photocatalytic materials for wastewater remediation: A scoping review	Muhammad A. Abo El-Khair	Ahmed O. Abo El Naga, Khalid Z. Elwakeel, Ahmed M. Elgarahy, **A.K. Priya**, Krishna Kumar Yadav, Asmaa S. Morshedy	Coordination Chemistry Reviews	Volume 544, 1 December 2025, 216961	SCI	IF 23.5 & Q1	https://www.sciencedirect.com/science/article/pii/S0010854525005314
3	Photocatalytic activity of microwave-assisted	Gomathi Ramalingam	**Priya Arunkumar**, Mashael Daghash Alqahtani & Ahmed M. Elgarahy	Journal of Cluster Science	Volume 36, article number	SCIE	IF 3.6 & Q2	https://link.springer.com/article/10.

	synthesized MoS_2/g-C_3N_4 composite for efficient decomposition of aniline green dye				171, (2025)			1007/s10876-025-02879-y
4	Machine learning-assisted prediction of heavy metal adsorption from tannery effluent wastewater using Delonix-regia with random forest, isotherms, and kinetics modelling	K.M. Manoj	**A.K. Priya**, M. Senthil Rajan	Desalination and Water Treatment	Volume 324, 101417	Scopus	IF 1.0 & Q3	https://www.sciencedirect.com/science/article/pii/S1944398625004333
5	Smart Water Management for SDG 6: A Review of AI and IoT-Enabled Solutions	Subhrajit Mandal	Anamika Yadav, Rishab Panwar, SM Shravan Kumar, Alagar Karthick, **ArunKumar Priya**, R. Vijayakumar & Sundaram Sankar Ganesh	Water Conservation Science and Engineering	Volume 10, article number 83, (2025)	Scopus	IF 1.9 & Q2	https://link.springer.com/article/10.1007/s41101-025-00407-7
6	Recent Advances in Integrated Carbon Dioxide Capture: Exploring Carbon Capture Methods and AI Integration	GOKULAN RAVINDIRAN	**A K Priya**, Brainware University,G. Shyamala,SR University,H. K. Ramaraju	Nature Environment and Pollution Technology		Scopus	IF 0.68 & Q3	https://editorial.neptjournal.com/index.php/1/article/view/935
7	Biosorptive Removal	**Arunkumar Nagappan**	Sivarajasekar N,Rambabu Krishnamoorthy,Cheng Chin Ku	Water Air Soil Pollution	10.33125	SCIE	IF 3.0 & Q2	https://link.springer.com/article/10.

	of Pharmaceutical Contaminants using Jujuba Seeds for Sustainable Water Pollution Mitigation: Mechanistic and Modeling Insights							1007/s11270-025-08346-8
8	Construction of CuS/g-C3N4 heterojunction composite by in-situ synthesis for enhanced photocatalytic degradation of malachite green	Gomathi Ramalingam	**Priya Arunkumar**	Matéria (Rio de Janeiro)	Volume 30 Pages e20250154	SCI	IF 0.9 & Q3	https://www.scielo.br/j/rmat/a/5Yxj3KXPn3gHCHqJfgJFV9m/?lang=en
9	Simplified Thermal Modeling of a Lithium-Ion Cell Considering Ambient Temperature Variations in a Closed Environment	Amit Kumar Rathoure	**Sivasamy Balasubramania**n, Dan Bahadur Pal, Ashish Kapoor	Asia Pasific Journal of Chemical Engineering	-	SCI	IF 1.6	https://onlinelibrary.wiley.com/doi/10.1002/apj.70126

10	Sustainable biopolymer-based materials for oil spill remediation: artificial intelligence integration and technoeconomic insights - A review	Ahmed M. Elgarahy	Manal.G. Eloffy, **Priya Arunkumar**, Malak Zirari, Mahmoud M. Ali, Laila A. Al-Khatib, Mashael Daghash Alqahtani, Khalid Z. Elwakeel	International Journal of Biological Macromolecules	October 2025, 148310	SCI	IF 8.5 & Q1	https://www.sciencedirect.com/science/article/abs/pii/S0141813025088671
11	Integrated green bioprocessing of agro-waste for enhanced industrial enzyme production - kinetics and mixed culture optimization	S. Kavitha	**G. Surendran**	Global NEST Journal	Vol 27, No 8, 07685	Scopus	IF 1.5 & Q3	https://doi.org/10.1590/1517-7076-RMAT-2024-0936
12	Evaluation on adsorption characterization of Cr3+, Ni2+, Pb2+, Cd2+, Fe3+, and Zn2+ materials using delonix regia impacted by tannery effluents	Manoj Kolandayal Munusamy	Sri Krishna College of Technology, Coimbatore, **Priya Arunkumar**, KPR Institute of Engineering and Technology, Coimbatore	Matéria (Rio de Janeiro)		SCI	IF 0.9 & Q3	https://www.sciencedirect.com/science/article/pii/S2950357425000964
13	A REVIEW OF METHODOLOGY, PERFORMANCE AND KINETICS	Shanmugam Palanisamy	Dhanush KarikalaArashan, Giriharish Arumugam, Deepak Krishna Moorthy, **Pranav Shankaran**	Sustainable Chemistry One World	100139	Scopus		https://www.tandfonline.com/doi/full/10.1080/17597269.2025.2578575

	REVEALED IN SULFUR-BASED NANOPARTICLES IN ADVANCED OXIDATION PROCESSES OF EFFLUENT WASTEWATER							
14	An in-depth comparative analysis of fuel evolution: tracking physico-chemical characteristics in conventional diesel, e-diesel, biodiesel, and aged biodiesel	Chandradhwaj Nayak	**Laxmi Deepak Bhatlu**, Vaishnava Raghunath Chelluboyana, Smruti Prakash Sahoo, Shubhra Kanta Behera, Tankadhar Bhaisal, Biswajit Samal, Brahmotri Sahoo, Krushnashree Sushree Sangita Sahoo, Priya Arunkumar, Mohamed El-Qelish, Mashael Daghash Alqahtani & Ahmed M. Elgarahy	Biofuels		SCI	IF 2.2 & Q3	https://journal.gnest.org/publication/gnest_07712
15	Efficient Photocatalytic Elimination of Metformin Using Gadolinium-Doped $BiVO_4$ Optimized via Box-Behnken Design	**Karuppusamy Murugesan**	Natesan Sivarajasekar, Haribabu Arul	Global Nest Journal		SCI	IF 0.9 & Q3	https://www.tandfonline.com/doi/full/10.1080/15275922.2025.2578486
16	Seasonal Dynamics of Surface Water Pollution in Semi-Urban Telangana, India: A Comparative Analysis Using	Shravan Kumar S. M	R. Laxmana Reddy,Bukke Lavanya,**A. K. Priya**,Lingam Anju &Gannavaram Venkata Praveen	Environmental Forensics		Scopus		https://www.sciencedirect.com/science/article/pii/S2950357425000964

	PCA, FA, and UMAP								
17	Extraction of Vitamin B9 from Lactuca sativa and Molecular Docking Insights for Anaemia Intervention	Nagul Dev Selvanatrajan	Moogambigai Sugumar, Vijayalakshmi Rajadurai, **Arunkumar Nagappan**	Microchemical Journal	Article 118477	May 2026	SCI	IF 5.1	htt
18	Antidiabetic and Hepatoprotective Effects of Dichrostachys cinerea Bark Extract in Streptozotocin-Induced Diabetic Rats	Suha Mujahed Abudoleh	Suha Mujahed Abudoleh, Qais Abualassal, Zead Helmi Abudayeh, Zain Alabden Ghanim Ahmed Ahmed, Samer Hasan Hussein-Al-Ali, Kowsalya Ramalingam, Shilpa Perumal Narasimhamoorthi, Palanisamy Arulselvan, **Karunakaran Saravanan**	Indian Journal of Pharmaceutical Education and Research	Vol.60	Jun 2026	SCI	IF 1.0	htt
19	Eco-Friendly Fabrication and Chemical Profiling of Termite Wing-Derived Novel Chitosan-Silver Nanoparticles with Antibacterial and Antibiofilm Potentials	**Karunakaran Saravanan**	Raja Manickam, Karthik Shanmugam	Asian Journal of Chemistry	Vol.38	2026	Scopus	—	htt o-l
20	Leveraging Sodium Alginate–Nickel Oxide–Berbamine	**Karunakaran Saravanan**	Muruganantham Bharathi et al.	Process Biochemistry	Vol.153	Jun 2025	SCI	IF 4.4	htt abs

	Hybrid Nanomaterials by Assessing Cytotoxicity-Mediated Oxidative Stress in Hep3B Cell Lines								
21	Simplified Thermal Modeling of a Lithium-Ion Cell Considering Ambient Temperature Variations in a Closed Environment	**Amit Kumar Rathoure**	**Sivasamy Balasubramanian,** Dan Bahadur Pal, Ashish Kapoor	Asia-Pacific Journal of Chemical Engineering	—	Sep 2025	SCI	IF 1.6	htt 10
22	Synthesis of Biofilm from Citrus × Sinensis, Musa, and Punica granatum Mixed Peel for Environmental Sustenance	Venkatesan Dhananjeyan	Venkatesan Dhananjeyan, Annamalai Thiruvengadam, **Balasubramanian Sivasamy**, Prabu Deivasigamania Michael, Rahul Soosai	Journal of Renewable Energy and Environment	Vol.12(3)	May 2026	Scopus	Q3	htt
23	Investigation of Lanthanum Pyrochlore–Lanthanum Phosphate Composite Coatings for High-	Karthikeyan Kumarasamy	**Umapriya Rohan**, Manisha Vidyavathy S	Bulletin of Materials Science	Vol.49, Article 58	Mar 2026	SCI (Q2)	IF 2.1	htt 03

	Temperature CMAS Corrosion Resistance in TBCs								
24	High Performance Membrane Fabrication for Minimizing Mineral Scaling and Improving Performance in Nanofiltration Applications	Rajesh Darvuri	Selvakumaran S., **Umapriya R.**	IEEE ICCSP 2025	Conference Proceedings	Jul 2025	Scopus	—	htt 08

R & D Coordinator **HOD/CH**

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1	**A. K. Priya**	Mechanical and durability assessment of paver blocks incorporating electronic plastic waste and polyethylene fiber	*Journal of Building Pathology and Rehabilitation*, 2026, Vol. 11, Article 18, Springer	Scopus, Q2	10.1007/s41024-025-00690-w	Yes
2	**A. K. Priya**	The promise of graphene-based photocatalytic materials for wastewater remediation: A scoping review	*Coordination Chemistry Reviews*, 2025, Vol. 544, Article 216961, Elsevier	SCI, Q1, IF 23.5	Not provided	Yes
3	**Priya Arunkumar**	Photocatalytic activity of microwave-assisted synthesized MoS_2/g-C_3N_4 composite for efficient decomposition of aniline green dye	*Journal of Cluster Science*, 2025, Vol. 36, Article 171, Springer	SCIE, Q2, IF 3.6	10.1007/s10876-025-02879-y	Yes
4	**A. K. Priya**	Machine learning-assisted prediction of heavy metal adsorption from tannery effluent wastewater using Delonix-regia with random	*Desalination and Water Treatment*, 2025, Vol. 324, Article 101417	Scopus, Q3, IF 1.0	Not provided	Yes

		forest, isotherms, and kinetics modelling				
5	**ArunKumar Priya**	Smart Water Management for SDG 6: A Review of AI and IoT-Enabled Solutions	*Water Conservation Science and Engineering*, 2025, Vol. 10, Article 83, Springer	Scopus, Q2, IF 1.9	10.1007/s41101-025-00407-7	Yes
6	**A K Priya**	Recent Advances in Integrated Carbon Dioxide Capture: Exploring Carbon Capture Methods and AI Integration	*Nature Environment and Pollution Technology*	Scopus, Q3, IF 0.68	Not provided	Yes
7	**Arunkumar Nagappan**	Biosorptive Removal of Pharmaceutical Contaminants using Jujuba Seeds for Sustainable Water Pollution Mitigation: Mechanistic and Modeling Insights	*Water Air Soil Pollution*, Vol. 10.33125	SCIE, Q2, IF 3.0	10.1007/s11270-025-08346-8	Yes
8	**Priya Arunkumar**	Construction of CuS/g-C_3N_4 heterojunction composite by in-situ synthesis for	*Matéria (Rio de Janeiro)*, Vol. 30, Article e20250154	SCI, Q3, IF 0.9	Not provided	Yes

		enhanced photocatalytic degradation of malachite green				
9	**Sivasamy Balasubramanian**	Simplified Thermal Modeling of a Lithium-Ion Cell Considering Ambient Temperature Variations in a Closed Environment	*Asia Pacific Journal of Chemical Engineering*, 2025	SCI, IF 1.6	10.1002/apj.70126	Yes
10	**Priya Arunkumar**	Sustainable biopolymer-based materials for oil spill remediation: artificial intelligence integration and technoeconomic insights - A review	*International Journal of Biological Macromolecules*, October 2025, Article 148310, Elsevier	SCI, Q1, IF 8.5	Not provided	Yes
11	**G. Surendran**	Integrated green bioprocessing of agro-waste for enhanced industrial enzyme production - kinetics and mixed culture optimization	*Global NEST Journal*, Vol. 27, No. 8, Article 07685	Scopus, Q3, IF 1.5	10.1590/1517-7076-RMAT-2024-0936	Yes

12	**Priya Arunkumar**	Evaluation on adsorption characterization of Cr^{3+}, Ni^{2+}, Pb^{2+}, Cd^{2+}, Fe^{3+}, and Zn^{2+} materials using Delonix regia impacted by tannery effluents	*Matéria (Rio de Janeiro)*	SCI, Q3, IF 0.9	Not provided	Yes
13	**Pranav Shankaran**	A Review of Methodology, Performance and Kinetics Revealed in Sulfur-Based Nanoparticles in Advanced Oxidation Processes of Effluent Wastewater	*Sustainable Chemistry One World*, Article 100139	Scopus	Not provided	Yes
14	**Laxmi Deepak Bhatlu**	An in-depth comparative analysis of fuel evolution: tracking physico-chemical characteristics in conventional diesel, e-diesel, biodiesel, and aged biodiesel	*Biofuels*, 2025	SCI, Q3, IF 2.2	Not provided	Yes
15	**Karuppusamy Murugesan**	Efficient Photocatalytic	*Global NEST Journal*	SCI, Q3, IF 0.9	Not provided	Yes

		Elimination of Metformin Using Gadolinium-Doped $BiVO_4$ Optimized via Box-Behnken Design				
16	**A. K. Priya**	Seasonal Dynamics of Surface Water Pollution in Semi-Urban Telangana, India: A Comparative Analysis Using PCA, FA, and UMAP	*Environmental Forensics*	Scopus	Not provided	Yes
17	**Arunkumar Nagappan**	Extraction of Vitamin B9 from Lactuca sativa and Molecular Docking Insights for Anaemia Intervention	*Microchemical Journal*, May 2026, Article 118477	SCI, IF 5.1	10.1016/j.microc.2026.118477	Yes
18	**Karunakaran Saravanan**	Antidiabetic and Hepatoprotective Effects of Dichrostachys cinerea Bark Extract in Streptozotocin-Induced Diabetic Rats	*Indian Journal of Pharmaceutical Education and Research*, Vol. 60, June 2026	SCI, IF 1.0	Not provided	Yes

19	**Karunakaran Saravanan**	Eco-Friendly Fabrication and Chemical Profiling of Termite Wing-Derived Novel Chitosan-Silver Nanoparticles with Antibacterial and Antibiofilm Potentials	*Asian Journal of Chemistry*, Vol. 38, 2026	Scopus	Not provided	Yes
20	**Karunakaran Saravanan**	Leveraging Sodium Alginate–Nickel Oxide–Berbamine Hybrid Nanomaterials by Assessing Cytotoxicity-Mediated Oxidative Stress in Hep3B Cell Lines	*Process Biochemistry*, Vol. 153, June 2025	SCI, IF 4.4	Not provided	Yes
21	**Sivasamy Balasubramanian**	Simplified Thermal Modeling of a Lithium-Ion Cell Considering Ambient Temperature Variations in a Closed Environment	*Asia-Pacific Journal of Chemical Engineering*, September 2025	SCI, IF 1.6	10.1002/apj.70126	Yes

22	**Balasubramanian Sivasamy**	Synthesis of Biofilm from Citrus × Sinensis, Musa, and Punica granatum Mixed Peel for Environmental Sustenance	*Journal of Renewable Energy and Environment*, Vol. 12(3), May 2026	Scopus, Q3	Not provided	Yes
23	**Umapriya Rohan**	Investigation of Lanthanum Pyrochlore–Lanthanum Phosphate Composite Coatings for High-Temperature CMAS Corrosion Resistance in TBCs	*Bulletin of Materials Science*, Vol. 49, Article 58, March 2026	SCI, Q2, IF 2.1	10.1007/s12034-026-03576-w	Yes
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24	**Umapriya R.**	High Performance Membrane Fabrication for Minimizing Mineral Scaling and Improving	*IEEE ICCSP 2025*, Conference Proceedings, July 2025	Scopus	Not provided	Yes

		Performance in Nanofiltration Applications				

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24	**Umapriya R.**	High Performance Membrane Fabrication for Minimizing Mineral Scaling and Improving Performance in Nanofiltration Applications	*IEEE ICCSP 2025*, Conference Proceedings, July 2025	Scopus	Not provided	Yes