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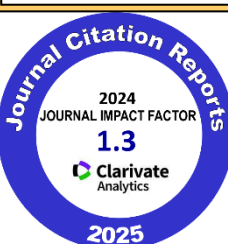
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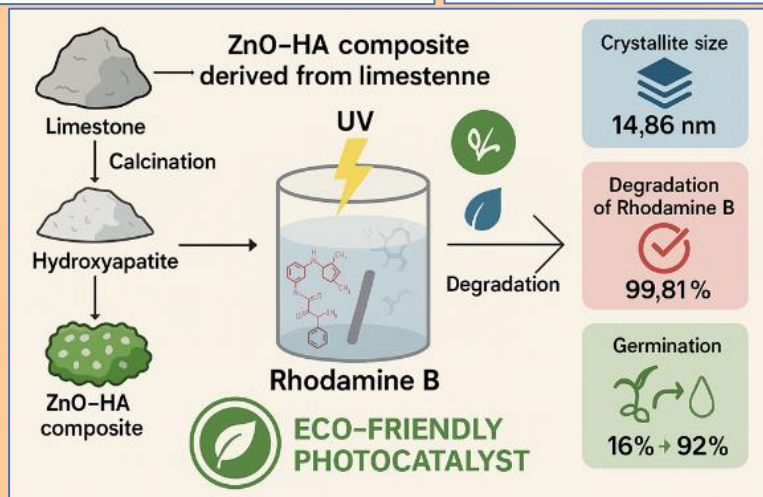
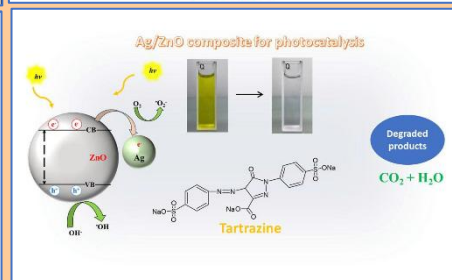
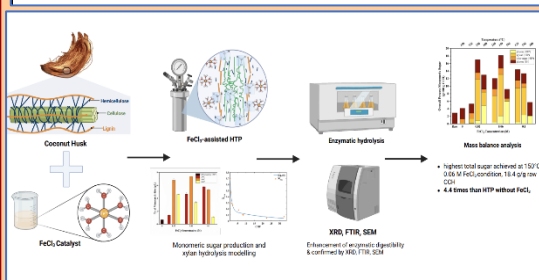
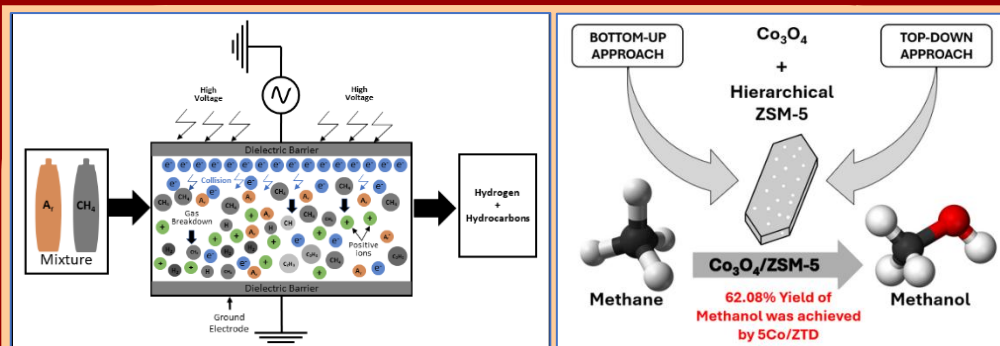
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Bulletin of Chemical Reaction Engineering & Catalysis, an international journal, provides a forum for publishing the novel technologies related to the catalyst, catalysis, chemical reactor, kinetics, and chemical reaction engineering. Scientific articles dealing with the following topics in chemical reaction engineering, catalysis science, and engineering, catalyst preparation method and characterization, novel innovation of chemical reactor, kinetic studies, etc. are particularly welcome. However, articles concerned on the general chemical engineering process development are not covered and out of the scope of this journal.

This journal encompasses *Original Research Articles*, *Review Articles* (only selected/invited authors), and *Short Communications*, including: fundamentals of catalyst and catalysis; fundamentals of chemical reaction engineering; kinetics studies of chemical reaction engineering; materials and nano-materials for catalyst; photocatalyst and photocatalysis; chemistry of catalyst and catalysis; applied chemical reaction engineering; applied catalysis; applied bio-catalysis; applied bio-reactor; membrane bioreactor; chemical reactor design (not process parameter optimization); catalyst regeneration; catalyst deactivation; surface chemistry of catalyst; bio-catalysis; enzymatic catalytic reaction (not process parameter optimization); kinetic studies of enzymatic reaction (not process parameter optimization); the industrial practice of catalyst; the industrial practice of chemical reactor engineering; application of plasma technology in catalysis and chemical reactor; and advanced technology for chemical reactors.

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PUBLICATION INFORMATION

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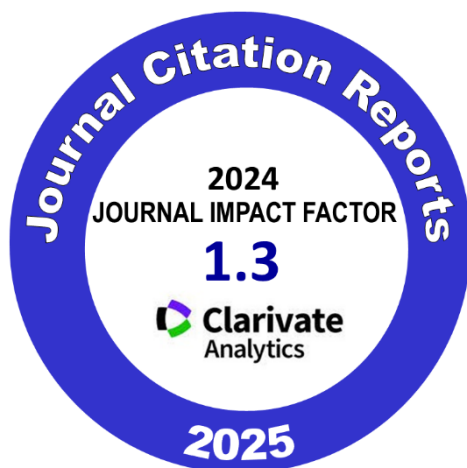
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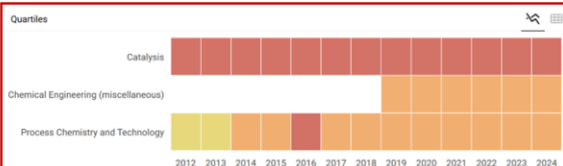
* Scopus ID	: 19900191860
* SJR Scimago (2024)	: 0.313 (Q3)
* SNIP (2024)	: 0.415
* CiteScore Scopus (2024) / Percentile	: 3.2 (Q3) / 48 th
* Journal Impact Factor (JIF) 2024 (JCR 2025)	: 1.3 (Q3)
* Journal Citation Index (JCI) 2024 (Web of Science)	: 0.214 (Q3)



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3.2	0.313	0.415	
CiteScore 2024	SJR 2024	SNIP 2024	
CiteScore Rank			
ASJC Category	Quartile	Percentile	Rank
General Chemistry	Q3	48th	208 / 404
Chemical Engineering (miscellaneous)	Q3	42nd	53 / 91
Process Chemistry and Technology	Q3	37th	44 / 79
Catalysis	Q4	73rd	54 / 79

CiteScoreTracker 2025

2.6 = $\frac{591 \text{ Citations to date}}{226 \text{ Documents to date}}$

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Profile of BCREC in Journal Citation Report (JCR) 2025 by Clarivate Analytics - Web of Science

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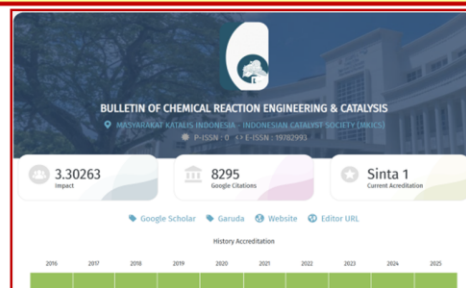
Web of Science Core Collection Database: ESCI

Journal Impact Factor (JIF) 2024 : 1.3
 Journal Citation Indicator (JCI) 2024 : 0.21

Category: Engineering, Chemical
 Quartile of JCI in Category: Q4
 Quartile of JIF in Category: Q4
 Total Citations in 2024: 780



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Bulletin of Chemical Reaction Engineering & Catalysis (e-ISSN: 1978-2993) has been covered (indexed and abstracted) by following indexing services:

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- [1] Sun, Z., Zhao, W., Wu, J., Shi, K., Zhang, L., & Kou, W. (2025). One-step Hydrothermal Synthesis of Fe₃O₄/GO Composites Combined with Persulfate for the Removal of Reactive Black in Aqueous Solution. *Bulletin of Chemical Reaction Engineering & Catalysis*, 20(3), 392-402. DOI: <https://doi.org/10.9767/bcrec.20355>
- [2] Kataria, Y. V., Lavrenov, S. A., Yakovenko, E. Y., Klushin, V. A., Yakovenko, R. E., Kashparova, V. P., & Zubkov, I. N. (2025). Oxidative Oligomerization of Fischer–Tropsch Internal Olefins Catalyzed by Metal Octoates of s, p and d Block Elements. *Bulletin of Chemical Reaction Engineering & Catalysis*, 20(3), 403-410. DOI: <https://doi.org/10.9767/bcrec.20363>
- [3] Baghel, S., Khurana, M., & Gupta, P. (2025). Characterization of Silver Nanoparticles Prepared via Green Synthesis from Amomum Subulatum: Investigation of its Antioxidant, Antimicrobial and Catalytic Properties in Dye Degradation. *Bulletin of Chemical Reaction Engineering & Catalysis*, 20(3), 411-427. DOI: <https://doi.org/10.9767/bcrec.20374>
- [4] Agustian, J., & Hermida, L. (2025). Salt-Assisted Mesostructured Cellular Foam (MCF) Silica Synthesis from Bagasse Bottom Ash for Enzymatic Starch Hydrolysis. *Bulletin of Chemical Reaction Engineering & Catalysis*, 20(3), 428-440. DOI: <https://doi.org/10.9767/bcrec.20379>
- [5] Ulfa, M., Salsabila, P. R., Saputro, A. N. C., & Nurharyati, N. D. (2025). Methylene Blue Degradation with Sulfonated SPG20 Silica-Fe₂O₃ Hybrid Photocatalysts. *Bulletin of Chemical Reaction Engineering & Catalysis*, 20(3), 441-457. DOI: <https://doi.org/10.9767/bcrec.20380>
- [6] Amine, N. Y. M., Mohamed, M., & Djilali, B. (2025). Investigation of Ar/CH₄ Mixtures in Dielectric Barrier Discharge: A Simulation Approach for Hydrogen Production. *Bulletin of Chemical Reaction Engineering & Catalysis*, 20(3), 458-470. DOI: <https://doi.org/10.9767/bcrec.20352>
- [7] Sukarta, I. N., Suyasa, I. W. B., Mahardika, I. G., Suprihatin, I. E., Sastrawidana, I. D. K., Wiratma, I. G. L., & Darmayasa, D. K. (2025). Eco-Friendly Photocatalyst from Limestone: ZnO-Hydroxyapatite Composite for Efficient Rhodamine B Removal. *Bulletin of Chemical Reaction Engineering & Catalysis*, 20(3), 471-482. DOI: <https://doi.org/10.9767/bcrec.20426>
- [8] Morshedlo, T., Hosseini, S. A., Shahini, M. H., Ghorbanzadeh, S., & Alishahi, M. (2025). Nanostructured Ni-B Seed Layer Electrocatalysts for Oxygen Evolution Reaction. *Bulletin of Chemical Reaction Engineering & Catalysis*, 20(3), 483-492. DOI: <https://doi.org/10.9767/bcrec.20392>
- [9] Wangsa, W., Saviola, A. J., Hauli, L., Trisunaryanti, W., Chandra, P., Fitria, R. A., Mahayuwati, P. N., & Wijaya, K. (2025). A Green and Sustainable Approach for Converting Laboratory Latex Glove Waste into Liquid Fuel via Microwave-assisted Pyrolysis. *Bulletin of Chemical Reaction Engineering & Catalysis*, 20(3), 493-504. DOI: <https://doi.org/10.9767/bcrec.20429>
- [10] Khattrin, I., Putri, D. N., Ridwan, M., & Krisnandi, Y. K. (2025). Strategic Synthesis of Hierarchical Co₃O₄/ZSM-5 Zeolite as A Catalyst in Partial Oxidation of Methane: Bottom-up vs Top-down Methods. *Bulletin of Chemical Reaction Engineering & Catalysis*, 20(3), 505-516. DOI: <https://doi.org/10.9767/bcrec.20441>
- [11] Kadem, A. J., Lau, X. J., Pung, S. Y., Sreekantan, S., & Ramakrishnan, S. (2025). Kinetics Model and Optimization for Photocatalytic Degradation of Methylene Blue over Ag/TiO₂ Catalyst. *Bulletin of Chemical Reaction Engineering & Catalysis*, 20(3), 517-534. DOI: <https://doi.org/10.9767/bcrec.20411>
- [12] Wijaya, C., Sangadji, N. L., Muharja, M., Widjaja, T., Riadi, L., & Widjaja, A. (2025). Enhancing Monomeric Sugar Production from Coconut Husk by FeCl₃-assisted Hydrothermal Pretreatment and Enzymatic Hydrolysis. *Bulletin of Chemical Reaction Engineering & Catalysis*, 20(3), 535-552. DOI: <https://doi.org/10.9767/bcrec.20444>
- [13] Sinchangreed, A., Watcharamaisakul, S., & Janphuang, P. (2025). Preparation and Characterization of Zeolite A Synthesized from Narathiwat White Clay. *Bulletin of Chemical Reaction Engineering & Catalysis*, 20(3), 553-559. DOI: <https://doi.org/10.9767/bcrec.20445>
- [14] Salamah, S., Trisunaryanti, W., Kartini, I., & Purwono, S. (2025). Reaction Kinetics of Waste Cooking Oil Hydrocracking into Biofuel Using Ni-Impregnated Mesoporous Silica Catalyst. *Bulletin of Chemical Reaction Engineering & Catalysis*, 20(3), 560-568. DOI: <https://doi.org/10.9767/bcrec.20399>
- [15] Thi, C. V. D., Nguyen, T. A., Pham, Q. M., & Vu, A. (2025). Enhanced Photocatalytic Performance of Ag-Modified ZnO for the Degradation of Tartrazine Dye. *Bulletin of Chemical Reaction Engineering & Catalysis*, 20(3), 569-581. DOI: <https://doi.org/10.9767/bcrec.20443>