AISSMS
COLLEGE OF ENGINEERING
ज्ञानम् सकलजनहिताय
Accredited by NAAC with "A+" Grade

Department of Chemical Engineering

Faculty Profile



Prof.(Dr) Ashish V Mohod
Head, Department of Chemical Engineering
Post-doctorate 1, USP, Brazil
Post Doctorate 2, CNR-STIIMMA, Italy
PhD (Chemical Engineering), ICT, Mumbai
Assistant Professor
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Research Areas / Areas of Interest

Wastewater treatment, cavitation, biorefining, biodiesel, crystallization

Personal Details

Date of Birth :	14 /05 / 1985	**Domicile:**	Maharashtra
Gender :	Male	**Blood Group:**	O+ve
Contact Details:	Department of Chemical Engineering, AISSMS College of Engineering, Pune – 400001		

Academic Background

S. N0.	Qualification	Specialization	University	Class/Grade	Year of Passing
1	Post-Doctorate	Biorefining	CNR-STIIMA, Italy	--	July 2025
1	Post-Doctorate	Chemical Engineering	USP, Brazil	--	Sept 2022
1	Ph.D.	Chemical Engineering	ICT, Mumbai	--	Feb 2018
2	M.E.	Chemical Engineering	ICT, Mumbai	Ist	May 2010
3	B.E.	Chemical Engineering	Amravati University	Ist	May 2007

Work Experience

S. No.	Type of Experience	Years	Months
1	Teaching	13	02
2	Research	04	00
3	Industry	--	--
4.	Others	--	--
Total		**17**	**02**

Subjects / Courses Taught

S. No.	Subject	UG/PG	Class (FE/SE/TE/BE/ME)	No of times Subject Taught
1	Engineering Materials	UG	SE (Chemical)	07
2	Chemical Engineering Design-I	UG	TE (Chemical)	07
3	Petroleum Refining	UG	BE (Chemical)	04
4	Petrochemical Engg	UG	BE (Chemical)	01
5	Bioprocess Engg	UG	BE (Chemical)	01
6	Process optimization	PG	ME-Chemical	01
7	Chemical Reaction Enigneering-I	UG	BE Chemical	05

Research Publications

	National	International	State	SCI/ Scopus Indexed	UGC Approved
Journals	02	39	-	39	02
Conferences	36	-	-	-	--

Publication Details (Journals)

S. No	Document Details	Authors	Year	Source Details	ISBN/ ISSN	Publisher
1.	Degradation of magenta dye using cavitation-based transducers to glass marble: Lab to semi-pilot scale operations	Manisha V Bagal, Mahesh A Suryawanshi, Sanket N Shinde, Dipak V Pinjari, **Ashish V Mohod**	2022	Water environment research	1554-7531	Elsevier
2	Parameteric optimization of a hybrid cavitation-	M Bagal, B Ramos, S Mahajan, A	2022	*Chemical Engg Res. and Design*	2476-4779	Elsevier

	based Fenton process for the degradation of methyl violet 2B in a packed bed reactor	Sonawane, P Palharim, **A V Mohod**				
3	Degradation of patent blue v using cavity-bubble oxidation reactor induced by glass balls	**Ashish V Mohod**, Manisha V Bagal, Mayur Malusare, Kunal Ranjane	2022	Advances in Environmental Technology	17443563	Elsevier
4	Degradation of dye in a continuous zig-zag flow pattern photocatalytic reactor using Doehlert matrix	M Bagal, G Kumbhar, S Shukla, A Tiwari, D Gajbhiye, **A V Mohod**	2022	*Chemical Engg Res. and Design*	ISSN 2476-4779	Elsevier
5	Effect of additives on degradation of Poly Vinyl Alcohol (PVA) using ultrasound and microwave irradiation	Manisha V Bagal, Rahul R Saini, Abdul Rahim I Shaikh, Saurabh Patil, **A V Mohod***, Dipak V Pinjari	2022	*international polymer processing*	ISSN 2195-8602	Elsevier
6	Improvement in crystallization of copper sulphate using ultrasound and comparison with conventional method	**A V Mohod**, S Bangadkar, A Deshmukh, S Singh, M Bagal, P R Gogate	2022	Chemical Engg and processing-process intensification	0255-2701	Elsevier

7	Influence of reaction parameters on oxalic acid crystallization using conventional and ultrasonication: Doehlert matrix	M Bagal, S Patil, K Shinde, S Singh, **A V Mohod**	2022	J of crystal growth	0022-0248	Elsevier
8	Optimization of esterification of Palm fatty acid distillate using conventional approach and its comparison with ultrasonic and microwave irradiation	M Bagal, B Deb, T Unharia, V Rajan, **A V Mohod**	2021	*Energy, Ecology and Environment*	2363-7692	Elsevier
9	Intensified synthesis of biodiesel using low-cost feedstock and catalyst via conventional as well as ultrasonic irradiation-based approach	**A V Mohod***, N Bhaskar, V Ranjan, R Takur, M Bagal	2020	*South African Journal of Chemical Engineering*	1026-9185	Elsevier
10	Intensified synthesis of medium chain triglycerides using ultrasonic	**A V Mohod,** P R Gogate	2018	*Ultrasonic Sonochemistry*	1350-4177	Elsevier

	reactors at a capacity of 4L					
11	Process intensified degradation of Methyl Violet 2B using UV-air bubble induced oxidation based on small glass balls	**A V Mohod**, S Hinge, R Raut, M Bagal, D Pinjari		*Journal of Environmental Chemical Engineering*	2213-3437	Elsevier
12	Improved crystallization of ammonium sulphate using ultrasound assisted approaches with comparison with the conventional approach	**A V Mohod,** P R Gogate	2018	*Ultrasonic Sonochemistry*	1350-4177	Elsevier
13	Intensified synthesis of medium chain triglycerides using novel approaches based on ultrasonic and microwave irradiations	**A V Mohod,** P R Gogate	2017	*Chemical Engg Journal*	1385-8947	Elsevier
14	Intensification of biodiesel production using hydrodynamic	**A V Mohod,** P R Gogate*****, G Viel, P Firmino, R Guidici	2017	*Chemical Engg Journal*,	1385-8947	Elsevier

	cavitation based on high-speed homogenizer					
15	Intensification of esterification of non-edible oil as sustainable feedstock using cavitational reactors	**A V Mohod,** A S Subodhi, Parag R Gogate	2017	*Ultrasonic Sonochemistry*	1350-4177	Elsevier
16	Combined removal of Rh B and Rh 6G from wastewater using novel treatment approaches based on ultrasonic and ultraviolet irradiations	S Hinge, M Orpe, K Sathe, G Tikhe, K N Bawankar, **A V Mohod***, P R Gogate	2016	*Desalination and water treatment*	1944-3994	Elsevier
17	Degradation of Patent Blue V dye using modified photocatalytic reactor based on solar and UV irradiations	R Dalbhanjan, N B Bhaskar, B S Banerjee, S P Hinge, **A V Mohod***, P R Gogate	2015	*Desalination and water treatment*	1944-3994	Elsevier
18	Removal of Rhodamine 6G from wastewater using Solar Irradiations in the presence of different additives	N B Bhaskar, A D Kadam, J Biwal, P Diwate, R Dalbhanjan, D Mahale, S P Hinge, B S Banerjee, **A V Mohod***, P R Gogate	2015	*Desalination and water treatment*	1944-3994	Elsevier

19	Removal of patent blue V dye using air bubble-induced oxidation based on small glass balls: Intensification studies	D D Mahale, N N Patil, D S Zodge, P D Gaikwad, B S Banerjee, K N Bawankar, **A V Mohod***, P R Gogate	2015	*Desalination and water treatment*	1944-3994	Elsevier
20	Degradation of magenta dye using different approaches based on ultrasonic and ultraviolet irradiations: Comparison of effectiveness and effect of additives for intensification	Y S Karanjkar, R M Dinde, N M Dinde, K N Bawankar,S P Hinge, **A V Mohod***, P R Gogate	2015	*Ultrasonic Sonochemistry*	1350-4177	Elsevier
21	Sonocatalytic and Sonophotocatalytic degradation of Rhodamine 6G containing wastewaters	N Bokhale, S Bomble, R Dalbhanjan, D Mahale, S Hinge, B Banerjee, **A V Mohod***, P Gogate	2014	*Ultrasonic Sonochemistry*	1350-4177	Elsevier
22	Sonochemical decolorization of wastewaters containing Rhodamine 6G using ultrasonic bath at an operating capacity of 2-liter	B S Banerjee, A V Khode, A P Patil, **A V Mohod*,** P R Gogate	2014	*Desalination and Water Treatment*	1944-3994	Elsevier

23	Ultrasound based treatment approaches for intrinsic viscosity reduction of poly vinyl Pyrrolidone	I Pawar, P Joshi, A Kadam, N Pande, P Kamble, S Hinge, B Banerjee, **A V Mohod***, P R Gogate	2014	*Ultrasonic Sonochemistry*	1350-4177	Elsevier
24	Ultrasonic Degradation of Polymers: Effect of operating parameters and intensification using additives for carboxymethyl cellulose (CMC)and Polyvinyl alcohol (PVA)	**A V Mohod,** P R Gogate	2010	*Ultrasonic Sonochemistry*	1350-4177	Elsevier
25	Experimental investigation of preparation of grease and metallic soap from neem oil and karanja oil	Dipika Mahale, Shruti Hinge, Rachana Dalbhanjan, Barnali Banerjee, **Ashish V Mohod**	2017	Journal of Chemical Engg and its application	--	--
26	Phenol degradation using combined effects of hydrodynamic cavitation and oxidant: Doehlert matrix	**A V Mohod***, P H. Palharim, B Ramos, P F. Moreira, A Teixeira, R Giudici	2023	*Environmental Quality Management33(1) (2023)377-391*	*1520-6483*	Elsevier

27	Degradation of organic pollutants from wastewater using hydrodynamic cavitation: A Review	**A V Mohod**, ACSC Teixeira, M V Bagal, P R Gogate, R Giudici*,	2023	*J of environmental chemical engg*, 11(3)(2023) 109773	2213-3437	Elsevier
28	Degradation of Rhodamine 6G dye using a novel glass-marble packed bed reactor-based cavitation	**A V Mohod***, D B Clemente, N Klanovicz, P Moreira, M Bagal, A Teixeira, R Giudici	2023	*Chemical Engg and processing-process intensification*, 184 (2023)109287	0255-2701	Elsevier
29	Degradation of pesticides using hybrid processes based on cavitation and photocatalysis: A Review	M V Bagal, B A Nandgawle, R V Thosar, **A V Mohod**, P R Gogate	2024	*Environmental Quality Management* 33(4)(2024)459-486	1520-6483	Elsevier
30	Quantification of phenol degradation using hydrodynamic cavitation based packed bed reactor based on glass balls	**A Mohod**, D Clemente, N Klanovicz, P Moreira, M Bagal, A Teixeira, R Giudici	2024	*Environmental quality management*, 34(1) (2024) e22268 *)*	*1520-6483*	Elsevier

31	Doehlert matrix-based optimization of degradation of Rhodamine B in a swirling flow photocatalytic reactor operated in circulation mode	M Bagal, B Nandgawle, S Khalfay, R Thosar, **A Mohod**, P R Gogate	2024	*Brazilian Journal of Chemical Engineering*, (2024)1-12	0104-6632	Elsevier
32	Degradation of azo dyes using hydrodynamic cavitation and external oxidants	MV Bagal, V Rajan, S Shinde, BV Banerjee, V Gole, **AV Mohod**,	2024	*Advances in Environmental Technology* 10 (1)(2024) 55-69	1744356 3	Elsevier
33	Degradation of rhodamine dye using a modified flow photocatalytic reactor in the presence of external oxidants	M Bagal, V Mane, H Ambulkar, B Gawande, M Naniwadekar, K Bawankar, P Dange, A V Mohod, P Gogate	2025	The Canadian J of Chemical Engg, 103 (7)(2025) 3058-3070	1939-019X	Elsevier
34	From Waste to Technological Products: Bioplastics Production from Proteins Extracted from the Black Soldier Fly	Alessia Di Pasquale, Marina Zoccola, Ashish Mohod, Giulia Dalla Fontana, Anastasia Anceschi, Sara Dalle Vacche	2025	Polymers 17(11)(2025)158 2	**2073-4360**	Elsevier

35	A Systematic Production of Medium-Chain Triglycerides Using Conventional and Advanced Methods	M Bagal, N Bokhale, P Gadekar, B Banerjee, B Ramos, A Mohod	2025	Journal of The Institution of Engineers (India): Series E, 106(2)(2025)265-276	2250-2483	Elsevier
36	Glycerol free FAME and triacetin synthesis from waste cooking oil using MW reactor	P Singh, V Gole, J Sharma, A Mohod	2025	Brazilian Journal of Chemical Engineering, (2025)1-14.	0104-6632	Elsevier
37	Ultrasound-assisted cooling crystallization of edaravone for improving the crystal characteristics	Tushar Thakare, Ashish V Mohod, Parag R Gogate,	2026	The Canadian Journal of Chemical Engineering, 104(4)(2026)1935-1949	1939-019X	Elsevier
38	Hermetia illucens biofactory: from waste to high-value technological products: a review	A V Mohod, P Bhavsar, L Gasco, N Scotti, N Ravasio, M Zoccola	2026	Total Environment Engineering, 6(2026)100071	2950-631X	Elsevier
39	Sustainability in the Textile Sector: Wool	A V Mohod, M Aniello, M Zoccola, G Fontana, P Bhavsar, S Vacche	2026	Textiles, 6(1)(2026)29	2673-7248	Elsevier

	Dyeing with Hydrolyzate from Black Soldier Fly					

Publication Details (Conferences)

S. No	Document Details	Authors	Year	Conference Details	ISBN	Organised by
1.						

PhD / ME / BE Student Guided for Project

Level	Ph.D.	M.E. (PG)	B.E. (UG)
No. of Student guided	-	01	73

Professional Memberships

Professional Body	Level (National/ International)	Type (Fellow/Life/Annual)	Membership No.
Institution of Engineers, IEI	National	Associate member	AM-153544-5
Institution of Chemical Engineers IIChE	National	Life	LM-51547

Patents / IPR Filed / Granted

S. No	Investigator Details	Title	Year	Status (Filed/Granted)	Details
1	Inventor and aaplicant- Dr. A V Mohod	Treatment of waste water effluent on a continuous	2014	Published	2130/MUM/2014

		mode using photo-oxidation marble column			
2	Inventor and aaplicant- Dr. A V Mohod	An Improved Advanced Oxidation Process for the Treatment of Waste Water Containing Dyes using Waste Dry Battery/Cell as a Catalyst	2014	Published	2131/MUM/2014
3	Inventor and aaplicant- Dr. A V Mohod	Continuous Flow with Visible Light Induced Reactor using Nanoparticles	2018	Published	201821022830
4	Inventor and aaplicant- Dr. A V Mohod	Polymer Degradation using Novel Technique	2019	Published	201921023111
5	Inventor and aaplicant- Dr. A V Mohod	Degradation/decolorizatio n using adsorbent	2019	Published	201921023112
6	Inventor and aaplicant- Dr. A V Mohod	Intensified Synthesis of Biodiesel Using Advanced Technique	2019	Published	201921023113
7	Inventor and aaplicant- Dr. A V Mohod	Continuous swirling flow photocatalytic reactor	2022	Granted	202221030397
8	Inventor and aaplicant- Dr. A V Mohod	Ultrasonic photocatalytic oxidation reactor in the form of tray tower	2022	Granted	202221030393
9	Inventor and aaplicant- Dr. A V Mohod	Ultrasonic reactor operated in a continuous mode for biodiesel synthesis	2022	Published	202221030395
10	Dr. A V Mohod	Shell and tube photocatalytic reactor for efficient rhodamine B	2024	Published	202421080882A

		degradation in wastewater treatment			
11	Dr. A V Mohod	Catalyst coated thin film recycle flow photoreactor.	2026	Published	202621065730 A
12	Dr. A V Mohod	Solar photocatalytic wastewater treatment reactor with rotatable catalyst beads and catalytic plate assembly	2026	Published	202621065738 A

Books Published

S. No	Title	Name of the Publisher	ISBN/ISSN Number
1	**Ashish V Mohod**, Parag R Gogate, Process Intensification and parametric optimization in biodiesel synthesis using hydrodynamic cavitation reactors	Apple Academic Press in collaboration with CRC	9781315099354
2	M V Bagal, **A V Mohod**, Technological Developments in Energy Generation from Municipal Solid Waste	360 Degree Waste Management, Volume 1 139-157 (2023)	10.1016/B978-0-323-90760-6.00005-9

Research Grants Received

S. No	Program	Duration	Funding Agency	Grant Amount
1.	Res Train the trainer workshop in Germany on Water management in India	2015-16	VESBE, Hennef Germany	INR 22 Lacs

2	Sewage waste water treatment using innovative advanced oxidation processes	2018-19	AISSM society, Pune	INR 7 Lacs
3	Study of rejuvenation of effluent remediation by continuous flow with visible light induced reactor using nanoparticles	2018-19	Institute of Engineers, India	INR 40,000/-
4	Fabrication and manufacturing of water purifier: A simple and economic way of treatment	2014-15	Institute of Engineers, India	INR 20,000/-
5	Degradation of Rhodamine 6G at Pilot Scale Capacity using Hybrid Techniques based on Cavitation	2011-12	Institute of Engineers, India	INR 20,000/-
6	Eco-friendly natural resources based detergent preparation for rural entrepreneurship development	2023-24	Unnat Bharat Abhiyan, Minister of Higher Education, Government of India, India	INR 50,000/-

Details of Worshop / STTP / FDP / Seminar / Conferences Organized

S. No	Title	Type	Duration	Level (State/National/ International)	Sponsoring Agency
01	Environment and Green Technology for Sustainable Developmen	Seminar	February 1st, 2019 -2nd, 2019	National	UOP, Pune

02	Advances in Reactor Design	Seminar	February 27th, 2017 -28th, 2017	National	UOP, Pune
03	Indo-German Conference on 'Water Management in India'	Conference	May 29th, 2017	International	Ministry of Germany and VESBE, Germany
04	Promising and Innovative Young Chemical Engineers	Award	March 26th, 2017.	National	IIChE PRC

Contribution as Resource Person

S. No.	Place/ Organization	Topic	Level(National/Int/ State/Regional)	Date
1	AISSMS COE, Pune	Intensification of Chemical Processing using Novel Reactors	**National**	Jan 9th -10th and 22nd, 2015.
2	Madan Mohan Malviya University of Technology, UP, India.	new horizons in sustainable development	**National**	May 23rd, 2020

Details of Worshop / STTP / FDP / Conferences Attended

S. N	Title	Type	Duration	Organizer	Sponsoring Agency

Major Professional Responsibilities Handled

S. No.	Role and Responsibilities
1	Sewage treatment plant at pilot scale, Indo-German collaboration, R&D coordinator Water management coordinator, Central R&D laboratory in charge, Chairman of Chemical Engineering Subject in University of Pune, NAAC (accreditation), Department of advisory board, R&D coordinator, foreign collaboration coordinator, Examination coordinator, Mass transfer operation and Central research Laboratory incharge, Guest lecture, Science project exhibition, Winter research training program, conferences, workshops, seminars organized

Awards Received

S. No.	Awards
1	**M. P. Chary Memorial Outstanding Young Chemical Engineering Award 2017** for research and technological contribution (below 35 years). The M P Chary Memorial Award was constituted by Indian Institute of Chemical Engineers (IIChE), India.

Declaration: I hereby declare that all the statement made above are correct to the best of my knowledge and belief.



Dr. A V Mohod

(Name with Signature)