

## Dr Rajashekhara S

Affiliation (Asst Professor, Dept of Chemical Engineering, SIT)

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### Education

	Degree	Year	Institute	Specialization
1	Ph.D.	2017	NITK, Surathkal	Chemical Engg.
2	M.Tech.	2003	SIT, Tumakuru	Chemical Engg.
3	B.E			Chemical Engg.

### Professional Experience

	Date (from-to)	Designation	Organization
1	03/05/2007 – Till date	Lecturer/ Asst Professor	Siddaganga Institute of Technology
2	19/08/2006 – 02/05/2007	Lecturer	New Horizon College of Engineering
3	11/08/2003 – 18/08/2006	Lecturer	Shri Devi Institute of Engineering and Technology

### Positions held

*Member VTU BoE in BioTechnology 2018 – 2019*

Member VTU BoE in Chemical Engineering 2024 – 2025

### Affiliations of Professional organizations

- Member of the **Institute of Engineers (IEI)**, India
- Member of the **Indian Society for Technical Education (ISTE)**, India
- Member of **Indian Institute for Chemical Engineers (IIChE)**,
- Member **Association of Environmental Analytical Chemistry of India**

### Courses Taught

Undergraduate Courses

- Computer Application in Chemical Engineering,
- Transport Phenomena, Project Management,
- Engineering Economics and management .
- Petroleum refining Technology

#### Postgraduate Courses

- Process modeling and Simulation
- Fermentation Technology

#### Research Areas

- Transport operation
- Fluidization
- Spouted bed

#### Sponsored Projects

##### Completed Projects:

1. Title: Development of a prototype adsorption unit for treatment of fluoride-contaminated water  
Funding Agency: VGST  
Amount: 300000  
Duration: 2 years  
Role: Co-Principal Investigator

#### Publications

##### Journals

- EXPLORING JACKFRUIT FLOUR POLYPHENOLS AS PROMISING SGLT-2 INHIBITORS FOR HYPERGLYCEMIA MANAGEMENT Patil S.M.;Manu G.;Ramya C.M.;Rajashekhara S.;Desai S.M.;Parameswaran S.;Ramu R. International Journal of Applied Pharmaceutics, **Volume** 17, **Year** 2025, **Pages** 199-208,DOI:10.22159/ijap.2025v17i1.52573
- Treatment of fluoride-contaminated water in a prototype adsorption unit using zirconium-activated carbon nanocomposites Hiremath P.G.;Rajashekhara S.;Sarkar S.;Kumar H.S.;Thejashree V. Indian Chemical Engineer, **Year** 2024, DOI:10.1080/00194506.2024.2418309
- The repurposing of FDA-approved drugs to stop viral replication in COVID-19 treatment: a comprehensive molecular docking and dynamics analysis Dammalli M.;Bhavya S.G.;Shadakshara Murthy K.R.;Rajashekhara S.;Rangaswamy B.E. Research Journal of Biotechnology, **Volume** 18, **Year** 2023, **Pages** 55-66 [DOI:10.25303/1812rjbt055066](https://doi.org/10.25303/1812rjbt055066)

- Facile synthesis of N-doped TiO<sub>2</sub> nanosheets with enhanced photocatalytic activity Shalin Tyni, Aneetta Mary George, Neenu M.T, Rijin M.D. Tom, Deepak Roy George, S. Rajashekhara, Materials Today: Proceedings, **Year** 2023 DOI:<https://doi.org/10.1016/j.matpr.2023.04.648>
- FACILE CELLULOSE ACETATE MEMBRANE FABRICATION USING MESOPOROUS TiO<sub>2</sub> NANOPARTICLES: SYNTHESIS, CHARACTERISATION AND ITS PHOTOCATALYTIC APPLICATION Phattepur H.;Gowrishankar B.S.;Shekhar S.M.;Hiremath P.G.;Rajashekhara S. Article Journal of Chemical Technology and Metallurgy, **Volume** 57, **Year** 2022, **Pages** 953-961
- Microwave-assisted esterification and transesterification of dairy scum oil for biodiesel production: kinetics and optimisation studies Binnal P.;Amruth A.;Basawaraj M.P.;Chethan T.S.;Murthy K.R.S.;Rajashekhara S. Article Indian Chemical Engineer, **Volume** 63, **Year** 2021, **Pages** 374-386 DOI:10.1080/00194506.2020.1748124
- Optimization of parameters affecting dealcoholization of anthocyanin extract by liquid emulsion membrane using response surface methodology Binnal P.;Rajashekhara S.;Patil J. Article Journal of Applied Research and Technology, **Volume** 19, **Year** 2021, **Pages** 562-574 DOI:10.22201/icat.24486736e.2021.19.6.1135
- In-situ synthesis of ZSM-5 to form SCR catalyst membrane and Modeling using COMSOL Multiphysics Manjunath S.P.;Binnal P.;Rajashekhara S.;Patil J. Article Journal of Applied Science and Engineering, **Volume** 23, **Year** 2020, **Pages** 723-730
- ZSM-5 catalyzed copyrolysis of sugarcane bagasse with LDPE: Influence of microwave-assisted acid pretreatment of sugarcane bagasse on yield and composition of gasoline range oil. Binnal P.;Rajashekhara S.;Manjunath S.P.;Ahmed A.;Tawaf M.;Bhat A. Article Biomass Conversion and Biorefinery, **Year** 2020
- Drying of Agricultural Grains in a Multiple Porous Draft Tube Spouted Bed Rajashekhara, S.;Murthy, D. V.R. Article Chemical Engineering Communications, **Volume** 204, **Year** 2017, **Pages** 942-950 DOI:10.1080/00986445.2017.1328412

#### **Book Chapters:**

- Potential of Pyrolysis Biochar as an Eco-Friendly Biosorbent for Dye Removal from Industrial Wastewaters. Prakash Binnal, S Rajashekhara and Poornima G Hiremath book chapter Textile wastewater treatment, Sustainable textiles: Production processing, Manufacturing and Chemistry, **Year** 2022, **Pages** 197–229
- Fluoride Contamination in Underground Water and Its Treatment. Hiremath P.G.;Rajashekhara S.;Binnal P.;Theodore T. Book Chapter Management of Contaminants of Emerging Concern (CEC) in Environment, **Year** 2021, **Pages** 249-280 DOI:10.1016/B978-0-12-822263-8.00009-9
- Batch Drying of Wheat in a Multiple Porous Draft Tube Spouted Bed. S. Rajashekhara, D V R Murthy book chapter Recent Advances in Chemical Engineering, **Year** 2016 DOI:[https://doi.org/10.1007/978-981-10-1633-2\\_6](https://doi.org/10.1007/978-981-10-1633-2_6)

## Patents

- D V R Murthy and Rajashekhara S. "Multiple porous draft tubes spouted bed contactor". The Patent Number: 456087.

A handwritten signature in blue ink, appearing to read 'Rajashekhara S.', is written in a cursive style.

26/06/2025