Dr. Kaustubh Chandrashekhar Patankar

Ad HOC Faculty

Textile Engineering

VJTI, Mumbai

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Mobile Number: - +919930391215

Google Scholar Profile link

https://scholar.google.com/citations?user=wWsB3lUAAAAJ&hl=en

Linked Profile

https://www.linkedin.com/in/dr-kaustubh-patankar-6420a639/

Objective

Dedicated to bridging the gap between academic research and industrial applications by developing eco-friendly textile solutions, specializing in organic synthesis for specialty chemicals, and preparing students with cutting-edge knowledge in nanotechnology, advanced finishing techniques, and sustainable textile processing methods.

Research Area

Synthesis green flame retardants & its applications, Textile wet processing, Organic synthesis for speciality chemicals

Education

PhD (Science) in Textile Chemistry

ICT –Mumbai-400019

M. Sc. in Biophysics

University Department of Biophysics

University of Mumbai

B.Sc. in Chemistry

D. G. Ruparel College,

Mahim, Mumbai, Affiliated to University of Mumbai

Professional Details

Ad HOC Faculty: - Department of Textile Engineering, VJTI, Matunga, Mumbai (Jan-2025 - Present)

- To teach B. Tech. and M. Tech. student theory and conduct practicals
- Nanotechnology and its applications in Textile
- Advanced Finishing Technology
- Fibre Characterization
- Filtration Technology

R & D Officer: -Sarex Overseas-Boisar, Maharashtra (Dec 2020- Jan-2025)

- *Developed skills to perform literature search through the SciFinder platform.*
- *Synthesis of speciality chemicals and optimisation of processes having industrial applications.*
- *Expertise in Grignard reaction, Friedel-Crafts reaction, Alkylation reaction, Esterification reaction, and Condensation reaction.*
- *Interpret chromatogram, LC and LC-MS. GC and GC-MS.*
- *Product development through high vacuumdistillation (HVD).*
- *Nano emulsion formulation and its evaluation and studying its stability, and interpreting Particle size analysis, having application in textiles*

Teaching Experience

Visiting lecturer: -Vivekananda College, Mumbai-Maharashtra (Dec 2018 – Apr. 2019)

Taught M.Sc. - Analytical Chemistry Modules as per the syllabus of the University of Mumbai.

Academic Research

Project Fellow: -Hindustan Unilever Ltd Project at ICT Mumbai (Sep. 2018-Jun 2019)

To evaluate the efficacy of hair colouring formulations. Compare naturally dye formulated hair colourant on human hair and compare with established industrial hair dye formulation.

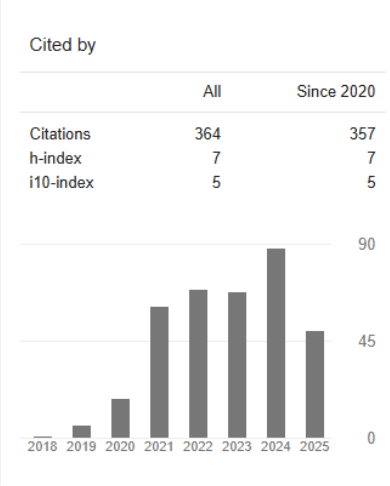
Research Assistant: (DST Inspire Project) At ICT Mumbai (Jun.2016-Dec 2016)

Literature search for molecules possessing organic electronics.

Project Fellow: - (Welspun Ltd) at ICT Mumbai (Aug. 2014-Jun 2015)

- *Study the effect of different surfactants on bed sheets and analyse it.*
- *Surface modification of cellulosic with graft polymerisation techniques and study dyeing and localised printing*

Statistics-Google Scholar (Accessed on 24th September 2025)



Publication

National	International	Book Chapter (International)
4	**7**	**1**

Publication List

Research Papers

1. **Patankar, K.C**., Biranje, S., Pawar, A., Maiti, S., Shahid, M., More, S. and Adivarekar, R.V., 2022. ***Fabrication of chitosan-based finishing agent for flame-retardant, UV-protective, and antibacterial cotton fabrics***. Materials Today Communications, *33*, p.104637. ***(SCI Indexed-Impact Factor -4.5)***

2. **Patankar, K.C**., Maiti, S., Singh, G.P., Shahid, M., More, S. and Adivarekar, R.V., 2021. ***Chemically modified wool waste keratin for flame retardant cotton finishing***. Cleaner Engineering and Technology, *5*, p.100319. (**SCI -Indexed Impact Factor -6.5**)

3. **Patankar, K.C**, Singh, G.P, Pawar, A., Maiti, S., More, S. and Adivarekar, R.V., 2021.***Modification of casein to impart flame retardancy in Saccharum munja fibre based nonwoven fabric***. Asian Dyer 18(3)p.43-49 ***(Impact Factor – 0.11)***

4. **Patankar, K.C**, Singh, G.P, Pawar, A., Maiti, S., Shahid, M., ,More, S. and Adivarekar, R.V,2021.***Improved flame-retardancy of natural fibre (Saccharum munja) nonwovens by using modified keratin***.Asian Dyer 18(3)p.43-49 ***(Impact Factor – 0.11)***

5. Chavali, K.S., Pethsangave, D.A., **Patankar, K.C**., Khose, R.V., Wadekar, P.H., Maiti, S., Adivarekar, R.V. and Some, S., 2020. ***Graphene-based intumescent flame retardant on cotton fabric***. *Journal of Materials Science*, *55*, pp.14197-14210. ***(SCI Indexed Impact Factor -4.3)***

6. Biranje, S.S., Madiwale, P.V., **Patankar, K.C**., Chhabra, R., Bangde, P., Dandekar, P. and Adivarekar, R.V., 2020. ***Cytotoxicity and hemostatic activity of chitosan/carrageenan composite wound healing dressing for traumatic hemorrhage***. *Carbohydrate Polymers*, *239*, p.116106. ***(SCI Indexed Impact Factor -12.5)***

7. Pawar, A., Biranje, S., **Patankar, K.** and Adivarekar, R.V., 2020. ***Statistical modelling for optimisation of dyeing of silk with semisynthetic azo dye made by chemical modification of areca nut***. *Research Journal of Textile and Apparel*, *24*(1), pp.20-37. ***(ESCI- Indexed Impact Factor -1.9)***

8. Pawar, A.B., **Patankar, K.C**., Madiwale, P. and Adivarekar, R., 2019. ***Application of chemically modified waste Allium cepa skin for one bath dyeing of polyester/wool blend fabric***. *Pigment & Resin Technology*, *48*(6), pp.493-501. ***(SCIE-Indexed Impact Factor -1.5)***

9. Biranje, S.S., Madiwale, P.V., **Patankar, K.C**., Chhabra, R., Dandekar-Jain, P. and Adivarekar, R.V., 2019. ***Hemostasis and anti-necrotic activity of wound-healing dressing containing chitosan nanoparticles***. *International journal of biological macromolecules*, *121*, pp.936-946***. (SCI Indexed Impact Factor -8.5)***

10. **Patankar, K.C**., Biranje, S., Pawar, A., Maiti, S., Shahid, M., More, S. and Adivarekar, R.V., 2018, ***Modification of casein for multifunctional finishing of cotton.*** Journal of Emerging Technologies and Innovative Research,5(11)pp 616-624 ***(Conference Proceeding)***

11. Tari, D., Haryan, S., **Patankar, K**., Jaiswal, V., Samant, M., Sivakami, S. and Dongre, P.M., 2017***. A simple egg membrane model for understanding diffusion characteristics of nanoparticles and amino acids***. *Current science*, pp.1574-1578. ***(SCI Indexed Impact Factor -1.1)***

Book Chapter

Patankar, K., Sawant, M. and Biranje, S.S., 2024. ***Nanocellulose and Its Emerging Applications in Textile Processing.*** *Advances in Renewable Natural Materials for Textile Sustainability*, pp.194-208

Paper presented in Conferences

- Presented Paper in "National Seminar on Recent Advances in Textile Finishing" organized by the **Central Institute for Research on Cotton Technology**, Matunga-Mumbai on 17th December 2016.
- Presented poster in "National Symposium on Biophysics" organized by **Jamia Millia Islamia, New Delhi** on 14th -17th February 2015

Workshops Attended

1. Certificate for participation one-day Symposium "***Small Angle X- ray Scattering and its Application***" organized by Center for Research in Nanotechnology and Science (CRNTS) and Sophisticated Analytical Instrument Facility at IIT- Bombay, Mumbai, conducted on 6th May 2019.
2. Certificate for participation in workshop "***Extraction and Isolation of Phytoconstituents***" organized by Department of Pharmaceutical Sciences and Technology at ICT, Mumbai, conducted on 8th -9th September 2018.
3. Certificate for participation in workshop "***Preparative Processing and Analysis of Bio/Pharmaceuticals***" organized by ICT, Mumbai, conducted on 14th -18th March 2017.
4. Certificate for participation in training programme "***Laboratory Training and Technical Training in Product Application and Performance Evaluation***" organized by Department of Fibres and Textile Processing Technology, ICT Mumbai conducted on 4th January – 4th March 2017.
5. Certificate for participation in workshop "***Plasma Processing of Materials***" organized by Department of Physics, ICT, Mumbai, conducted on 21 September 2016.
6. Certificate for participation in workshop "***Laboratory Safety Workshop***" organized by Department of Chemistry, ICT, Mumbai, conducted from 1-2 September 2016.
7. Certificate for participation in workshop "***Advanced Functional Materials: Synthesis to Applications***" organized by Department of Physics, University of Mumbai, conducted on 21st to 22nd March 2016.
8. Certificate for participation in workshop "***Advances in Application of Nanotechnology***" organized by ICAR-CIRCOT, Mumbai, conducted from 5th - 9th October 2015.
9. Workshop on "***Analytical Instrumentation Training***" conducted at Haffkine Institute for Training Research and Testing, Parel, Mumbai conducted from 25-27 April 2012.
10. Participated in "***UGC sponsored Workshop on Spectroscopy and Stereochemistry***" organized by Department of Chemistry, Ramnarain Ruia College, Mumbai from 12th - 14th December 2010.
11. Participated in "***Industrial Analytical Training***" organized by Department of Chemistry, D. G. Ruparel College, Mumbai from 19th April to 29th April 2010.