

Department of Chemistry and Chemical Sciences CENTRAL UNIVERSITY OF JAMMU

Rahya-Suchani (Bagla), District-Samba, Jammu-181143, (J&K) India

List of Extramural Research Projects

ONGOING

1. Title: Exploring the Synthetic Potential and Mechanistic Features of Novel Nucleopalladation-Initiated Multi-bond Forming Reactions of Alkynes

Funding Agency: DST-SERB

Budget: Rs. 35,97,022/ (CRG/2021/000760)

Duration: 3 years (2021-2024) **Principal Investigator: Dr. V. Sridharan**

2. Title: Development of new variational method using independent particle model

ansatz for the calculation of molecular thermal properties

Funding Agency: DST-SERB

Budget: Rs. 6,60,000/ (MTR/2021/000135)

Duration: 3 years (2022-2025) **Principal Investigator: Dr. Tapta Kanchan Roy**

3. Title: Development of Sensing Technologies for Explosives Detection Involving Metal Organic Frameworks (MOFs)

Funding Agency: DRDO

Budget: Rs. 1,36,51,000/Duration: 3 years (2020-2023)
Principal Investigator: Dr. Pawan Kumar
Co-Principal Investigator: Dr. V. Sridharan

COMPLETED

1. Title: Inert C-H Bond Activation-Initiated Cascade Processes via Oxidative Organocatalysis

Funding Agency: DST-SERB

Budget: Rs. 53,38,300/ (EMR/2016/001619)

Duration: 3 years (2018-2021) **Principal Investigator: Dr. V. Sridharan**

2. Title: Theoretical Investigation on Conformationally Resolved 3D-structures of Large Biomolecules by Quantum Anharmonic Vibrational Spectroscopy

Funding Agency: DST-SERB

Budget: Rs. 55,11,000/- (EMR/2017/000512)

Duration: 3 years (2018-2021) **Principal Investigator: Dr. Tapta Kanchan Roy**

3. Title: The microscopic view of structure and anharmonic vibrational spectroscopy of peptide-water complexes



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Funding Agency: UGC-Startup

Budget: Rs. 10,00,000/- (No.F.30-352/2017 (BSR))

Duration: 2 years (2017-2019) **Principal Investigator: Dr. Tapta Kanchan Roy**

4. Title: Surface modified novel magnetically tuned halloysite functionalized sulfonic acids: Synthesis, Characterization and Catalytic Activity

Funding Agency: UGC-Startup

Budget: Rs. 10,00,000/- (F.30-35/2017(BSR))

Duration: 2 years (2017-2019) **Principal Investigator: Dr. Princy Gupta**

5. Title: Understanding the novel reactivity and better utilization of bicyclic amidines

Funding Agency: DST-SERB

Budget: Rs. 37,62,000/- (ECR/2017/000419)

Duration: 3 years (2017-2020)

Principal Investigator: Dr. Venkata Ramana Doddi

6. Title: Synthesis and biological evaluation of Nordihydroguairetic acid and its analogues

Funding Agency: DST-SERB

Budget: Rs. 6,50,000/- (IFA12-CH-36)
Duration: 2 years (2017-2019 @ cujammu)
Principal Investigator: Dr. Venkata Ramana Doddi

List of CUJ Funded Research Projects (COMPLETED)

1. Title: To the accuracy of density functional theory based potentials for the description of anharmonic molecular vibrations

Funding Agency: Central University of Jammu

Budget: Rs. 2,00,000/- (CUJ/Acad/Proj-PHY/2017/97)

Duration: 2 years (2017-2019) **Principal Investigator: Dr. Tapta Kanchan Roy**

2. Title: Synthesis, spectroscopic and biological evaluation of asymmetrical Cr(III)-5-meso-(p-substituted phenyl)-10,15,20-triphenylporphyrin

Funding Agency: Central University of Jammu

Budget: Rs. 2,00,000/- (CUJ/Acad/P/CHESK/2017/160)

Duration: 2 years (2017-2019) **Principal Investigator: Dr. Sujata Kundan**



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3. Title: Novel synthesis of terminal alkynes and their derivatives

Funding Agency: CU Jammu
Budget: Rs. 2,00,000/Duration: 2 years (2017-2019)

Principal Investigator: Dr. Venkata Ramana Doddi

4. Title: Development of green synthetic protocols: Novel solid acids for catalysis

Funding Agency: CU Jammu

Budget: Rs. 2,00,000/- (CUJ/Acad/Proj CHE/2017/105)

Duration: 2 years (2017-2019) **Principal Investigator: Dr. Princy Gupta**