

## FACULTYPROFILE

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### Personal Information:

**Name** : Dr. Suresh Babu Kalidindi  
**Designation** : Associate Professor  
**Department** : Chemistry  
**Landline/mobile** : 8522917561  
**Email** : suresh.babu@ctuap.ac.in  
<https://sites.google.com/view/drsureshgroup/profile>



### Area of Specialization:

- Material Chemistry
- Hydrogen Energy
- Gas Sensors
- Nanocatalysis
- Crystalline Porous materials(MOFs and COFs)

### Academic qualification

1. **Ph.D.**, Department of Inorganic and Physical Chemistry, Indian Institute of Science(IISc), Bangalore, 2010
2. **M.Sc. Inorganic Chemistry**, Department of Chemistry, Andhra University, Vishakhapatnam, 2004

### Work/Teaching Experience:

- **Associate professor**(2022-Present): Associate professor, Central tribal university of Andhra Pradesh, Vizianagaram
- **UGC-Assistant professor** (2019-22): UGC-Assistant professor, Andhra University, Visakhapatnam, 2019- 2022
- **DST-INSPIRE Faculty/Assistant Professor**(2015-19):Poornaprajna Institute of Scientific Research(PPISR), Bangalore,
- **Postdoctoral Research Associate**(2013-15):University of Liverpool, United Kingdom
- **Alexander von Humboldt Fellow**(2011-13): Max Planck Institute for Intelligent Systems, Stuttgart and Ruhr University, Bochum, Germany.
- **RD-IFSC Post-Doctoral Fellow**(2010-11): Ruhr University, Bochum. Germany

### Research, Scholarly, Professional and Scientific Activity:

## Research publications in peer-reviewed journals(National /International)

1. Valle K.; DMello, M. E.; Sahoo, P.; Thokala, N.; Bakuru, V. R.; Vankayala, K.; Basavaiah, K.; **Kalidindi, S. B. \***, "Palladium-Nanoparticle-Decorated Covalent Organic Framework Nanosheets for Effective Hydrogen Gas Sensors", *ACS Appl. Nano Mater.*, **2023**, *6*, 10960.doi.org/10.1021/acsnm.3c01806
2. Thokala, N.; Vankayala, K.; Gaonkar, A. D.; Periyasamy, G.; Rahman, K. F.-U; Valle, K.; DMello, M. E.; Basavaiah, K.; **Kalidindi, S. B.\*** "Exfoliated Redox Active Imide Covalent-Organic Framework for Metal Free Hydrogen Gas Sensing" *Sens. Diagn.*, **2023**, *2*, 1176.doi.org/10.1039/D3SD00097D
3. Cheruvathoor, A.; Medved', P. M.; Bakuru, V. R.; Sharma, A.; Singh, D.; **Kalidindi, S. B.**; Bares, H.; Otyepka, M.; Jayaramulu, K.; Bakandritsos, A.; Zbořil, R. "Acidic graphene organocatalyst for the superior transformation of wastes into high-added-value chemicals" *Nat. Commun.***2023**, *14*, 1373. doi.org/10.1038/s41467-023-36602-0
4. Swamy, A.; Kanakikodi, K. S.; Bakuru, V. R.; Kulkarni, B. B.; Maradur, S. P.; **Kalidindi, S. B.\*** "Continuous Flow Liquid-Phase Semi hydrogenation of Phenylacetylene over Pd Nanoparticles Supported on UiO-66 (Hf) Metal-Organic Framework" *Chemistry Select*, **2023**, *8*, e202203926.doi.org/10.1002/slct.202203926
5. DMello, M. E.; Vishwanathan, S.; Bakuru, V. R.; Shanbhag, G. V.; **Kalidindi, S. B.\***"Metal–Organic Framework-Derived Co-Doped ZnO Nanostructures Anchored on N-Doped Carbon as a Room-Temperature Chemiresistive Hydrogen Sensor" *ACS Appl. Nano Mater.*, **2023**, *6*, 238-247.doi.org/10.1021/acsnm.2c04256
6. Krishnaveni, V.; DMello, M. E.; Basavaiah, K.; Samsonu, D.; Rambhia, D. A.; **Kalidindi S. B.\*** "Hybridization of Palladium Nanoparticles with Aromatic-Rich SU-101 Metal-Organic Framework for Effective Transfer Hydrogenation" *Eur. J. Inorg. Chem*, **2022**, *25*, e202200314.doi.org/10.1002/ejic.202200314(*This work has been featured on the front cover page of the Journal*)
7. DMello, M. E.; Sahoo, R. C.; Raghunathan, R.; Matte, H.S.S.R.; Yadav, P.; Shanbhag, G. V.; **Kalidindi, S. B.\*** "Pd (II) decorated conductive two-dimensional chromium-pyrazine metal-organic framework for rapid detection of hydrogen" *Int. J. Hydrog. Energy.*, **2022**, *47*, 9477-9483.doi.org/10.1016/j.ijhydene.2022.01.003
8. Bakuru, V.R.; Rahman, K. F.; Periyasamy, G.; Velaga, B.; Peela, N. R.; DMello, M. E.; Kanakikodi, K.S.; Maradur, S. P.; Maji, T. K.; **Kalidindi, S. B.\***"Unraveling high alkene selectivity at full conversion in alkyne hydrogenation over Ni under continuous flow

conditions" *Catalysis Science & Technology*, **2022**, *12*, 5265-5273.[doi.org/10.1039/D2CY00875K](https://doi.org/10.1039/D2CY00875K) (*This work has been featured on the back cover page of the Journal*)

9. Kulkarni, B.B.; Kanakikodi, K.S.; Rambhia, D. A.; **Kalidindi, S.B.**; Maradur, S. P. "Exploring the effect of acid modulators on MIL-101 (Cr) metal-organic framework catalysed olefin-aldehyde condensation; A sustainable approach for the selective synthesis of nopol" *New J. Chem.*, **2022**, *46*, 726-738 .[doi.org/10.1039/D1NJ04435D](https://doi.org/10.1039/D1NJ04435D)
10. Mounika, S; Krishnaveni, V.; DMello, M.E.; **Kalidindi, S. B.**\*"Copper (II)-Assisted Ammonia Borane Dehydrogenation: An Insight" *European J. Inorg. Chem.* **2021**, *38*, 4000-4006.[doi.org/10.1002/ejic.202100628](https://doi.org/10.1002/ejic.202100628)
11. Kim, S.; Muhammad, R.; Schuetzenduebe, P.; **Kalidindi, S. B.**; Schütz, G.; Oh, H., Son, K. "Hybrids of Pd Nanoparticles and Metal–Organic Frameworks for Enhanced Magnetism" *J. Phys. Chem. Lett.* **2021**, *12*, 4742–4748. [doi.org/10.1021/acs.jpcclett.1c01108](https://doi.org/10.1021/acs.jpcclett.1c01108)
12. Jayaramulu, K.; DMello, M. E.; Kesavan, K.; Schneemann, A.; Otyepka, M.I; Kment, S.; Narayana, C.; **Kalidindi, S. B.**; Varma, R. S.; Zboril, R.; Fischer, R. A. "A multifunctional covalently linked graphene–MOF hybrid as an effective chemiresistive gas sensor" *J. Mater. Chem. A*, **2021**, *9*, 17434-17441. [doi.org/10.1039/D1TA03246A](https://doi.org/10.1039/D1TA03246A)
13. Sutar, P.; Bakuru, V. R.; Yadav, P.; Laha, S.; **Kalidindi, S. B.\***, Maji, T. K. "Nanocomposite Hydrogel of Pd@ZIF-8 and Laponite®: Size-Selective Hydrogenation Catalyst under Mild Conditions" *Chem. Eur. J.* **2021**, *27*, 3268-327.[doi.org/10.1002/chem.202004345](https://doi.org/10.1002/chem.202004345)
14. Bakuru, V.R.; Samanta, D., Maji, T. K., **Kalidindi, S. B.\*** "Transfer hydrogenation of alkynes into alkenes by ammonia borane over Pd-MOF catalysts", *Dalton Transactions*, **2020**, *49*, 5024-5028.[doi.org/10.1039/D0DT00472C](https://doi.org/10.1039/D0DT00472C)
15. Bakuru, V. R.; Davis, D.; **Kalidindi, S.B.\*** "Cooperative Catalysis at Metal-MOF Interface: Hydrodeoxygenation of Vanillin over Pd Nanoparticles Covered with UiO-66(Hf) MOF" *Dalton Transactions*, **2019**, *48*, 8573-8577.[doi.org/10.1039/C9DT01371G](https://doi.org/10.1039/C9DT01371G)
16. Bakuru, V. R.; DMello, M. E.; **Kalidindi, S.B.\*** "Metal-organic frameworks for hydrogen energy applications: Advances and Challenges" *ChemPhyChem*, **2019**, *20*, 1177-1215.[doi.org/10.1002/cphc.201801147](https://doi.org/10.1002/cphc.201801147)
17. Bakuru, V. R.; Churipard, S. R.; Maradur, S. P.; **Kalidindi, S.B.\*** "Exploring the Brønsted Acidity of UiO-66 (Zr, Ce, Hf) Metal-Organic Frameworks for Efficient Solketal Synthesis

- from Glycerol Acetalization”, *Dalton transactions*, **2019**, *48*, 843–847.[doi.org/10.1039/C8DT03512A](https://doi.org/10.1039/C8DT03512A)
18. DMello, M. E.; Sundaram, N. G.; Singh, A.; Singh, A. K.; **Kalidindi, S.B.** “Amine Functionalized Zirconium Metal-Organic Framework as an Effective Chemiresistive Sensor for Acidic Gases” *Chem. Comm.* **2019**, *55*, 349–352.[doi.org/10.1039/C8CC06875E](https://doi.org/10.1039/C8CC06875E)
19. Bakuru, V. R.; Velaga, B.; Peela, N. R.; **Kalidindi, S.B.** “Hybridization of Pd Nanoparticles with UiO-66(Hf) Metal-Organic Framework and the Effect of Nanostructure on the Catalytic Properties” *Chem. Eur. J.* **2018**, *24*, 15978–15982.[doi.org/10.1002/chem.201803200](https://doi.org/10.1002/chem.201803200)
20. DMello, M. E.; Sundaram, N. G.; **Kalidindi, S.B.** “Assembly of ZIF-67 Metal–Organic Framework over Tin Oxide Nanoparticles for Synergistic Chemiresistive CO<sub>2</sub> Gas Sensing” *Chem. Eur. J.* **2018**, *24*, 9220-9223.[doi.org/10.1002/chem.201800847](https://doi.org/10.1002/chem.201800847)
21. *Chem. Eur. J.* **2018**, *24*, 9220-9223.[doi.org/10.1002/chem.201800847](https://doi.org/10.1002/chem.201800847)
22. Bakuru, V. R., **Kalidindi, S.B.** “Synergistic Hydrogenation over Palladium through the Assembly of MIL-101(Fe) MOF over Palladium Nanocubes” *Chem. Eur. J.* **2017**, *23*, 16456-1659.[doi.org/10.1002/chem.201704119](https://doi.org/10.1002/chem.201704119)
23. **Kalidindi, S.B.** S. Nayak, M.E. Briggs, S. Jansat, A.P. Katsoulidis, G.J. Miller, J.E. Warren, D. Antypov, F. Corà, B. Slater, M.R. Prestly, C. Marti-Gastaldo, M.J. Rosseinsky “Chemical and Structural Stability of Zirconium-based Metal-Organic Frameworks with Large Three-Dimensional Pores by Linker Engineering” *Angew. Chem. Int. Ed.* **2015**, *54*, 221–226.[doi.org/10.1002/anie.201406501](https://doi.org/10.1002/anie.201406501)
24. Oh, H.<sup>#</sup>; **Kalidindi, S. B.**<sup>#</sup>; Um, Y.; Bureekaew, S.; Schmid, R.; Fischer, R. A.; Hirscher, M. “A Novel Cryo-Flexible Covalent Organic Framework for Efficient Hydrogen Isotope Separation by Quantum Sieving” *Angew. Chem. Int. Ed.* **2013**, *52*, 13219 – 13222.[doi.org/10.1002/anie.201307443](https://doi.org/10.1002/anie.201307443)(# both authors contributed equally)
25. **Kalidindi, S. B.**; Fischer, R. A. “Covalent organic frameworks and its metal nanoparticle composites: Prospects of hydrogen storage” *Phys. Status Solidi B* **2013**, *250*, 1119-1127. [doi.org/10.1002/pssb.201248477](https://doi.org/10.1002/pssb.201248477)
26. Oh, H.; Park, K.; **Kalidindi, S. B.**; Fischer, R. A.; Hirscher, M. “Quantum cryo-sieving for H<sub>2</sub> isotope separation in micro-porous frameworks: An experimental study on the correlation between selectivity and pore size” *J. Mater. Chem. A* **2013**, *1*, 3244-3248.[doi.org/10.1039/C3TA01544K](https://doi.org/10.1039/C3TA01544K)(*This work has been selected featured on the frontcover page of the Journal*)

27. **Kalidindi, S. B.**; Wiktor, C.; Ramakrishnan, A.; Weßing, J.; Schneemann, A.; Tendeloo, G. V.; R. A. Fischer “Lewis base mediated efficient synthesis and solvating-like host-guest chemistry of covalent organic frameworks” *Chem. Commun.* **2013**, *49*, 463-465.[doi.org/10.1039/C2CC37183A](https://doi.org/10.1039/C2CC37183A)
28. Sliem, M. A.; Schmidt, D. A.; Bétard, A., **Kalidindi, S. B.**; Gross, S.; Havenith, M.; Devi, A.; Fischer, R. A. “Surfactant Induced Non-Hydrolytic Synthesis of Phase-Pure ZrO<sub>2</sub> Nanoparticles using Metal-Organic and Oxocluster Precursors”, *Chem. Mat.***2012**, *4274-4282*.[doi.org/10.1021/cm301128a](https://doi.org/10.1021/cm301128a)
29. **Kalidindi, S. B.**; Oh, H.; Hirscher, M.; Esken, D.; Wiktor, C.; Turner, S.; Tendeloo, G. V.; Fischer, R. A. “Metal@COFs: Covalent Organic Frameworks as Templates for Pd Nanoparticles and Hydrogen Storage Properties of Pd@COF-102 Hybrid Material”, *Chem. Eur. J.* **2012**, *18*, 10848-10856.[doi.org/10.1002/chem.201201340](https://doi.org/10.1002/chem.201201340) (*Selected for frontispiece & most accessed article in Aug2012*)
30. Sanyal, U.; **Kalidindi, S. B.**; Nair, S.; Jagirdar, B. R. “Towards sustainability: a new, solid-state synthetic route for supported metal nanocatalysts”, *Current Science* **2012**, *102*, 78-84.
31. Sliem, M. A.; Turner, S.; Heeskens, D.; **Kalidindi, S. B.**;Tendeloo, G. V.; Mühlner, M.; Fischer, R. A. “Preparation, microstructure characterization and catalytic performance of Cu/ZnO and ZnO/Cu composite nanoparticles for liquid phase methanol synthesis”, *Phys. Chem. Chem. Phys.* **2012**, *14*, 8170-8178.[doi.org/10.1039/C2CP40482F](https://doi.org/10.1039/C2CP40482F)
32. **Kalidindi, S. B.**; Jagirdar, B. R. “Nanocatalysis and Prospects of Green Chemistry”, *Chem sus Chem***2012**, *5*, 65-75. [doi.org/10.1002/cssc.201100377](https://doi.org/10.1002/cssc.201100377) (*Most accessed article in [2012](#) and [2013](#)*)
33. Esken, D.; Turner, S.; Wiktor, C.; **Kalidindi, S. B.**;Tendeloo, G. V.; Fischer, R. A. “GaN@ZIF-8: Selective Formation of Gallium Nitride Quantum Dots inside a Zinc Methylimidazolate Framework”, *J. Am. Chem. Soc.***2011**, *133*, 16370-16373.[doi.org/10.1021/ja207077u](https://doi.org/10.1021/ja207077u)
34. **Kalidindi, S. B.**; Yuseenko, K.;Fischer, R. A. “Metallocenes@COF-102: organometallic host–guest chemistry of porous crystalline organic frameworks”, *Chem. Commun.* **2011**, *47*, 8506-8508. [doi.org/10.1039/C1CC11450F](https://doi.org/10.1039/C1CC11450F) (*This work has been featured on the front cover page of the Journal*)
35. **Kalidindi, S. B.**; Esken, D.; Fischer, R. A. “B-N chemistry@ZIF-8: dehydrocoupling of dimethylamineborane at room temperature by size confinement effect”, *Chem. Eur.*

*J.* **2011**, *17*, 6594-6597. doi.org/10.1002/chem.201100518

36. Kiran, V.; **Kalidindi, S. B.**; Jagirdar, B. R.; Sampath, S. "Electrochemical Oxidation of Boron Containing Compounds on Titanium Carbide and Its Implications to Direct Fuel Cells", *Electrochimica Acta* **2011**, *56*, 10493-10499. doi.org/10.1016/j.electacta.2011.04.032
37. **Kalidindi, S. B.**; Sanyal, U.; Jagirdar, B. R. "Chemical synthesis of metal nanoparticles using amine boranes", *ChemSusChem* **2011**, *4*, 317-324. doi.org/10.1002/cssc.201000318
38. **Kalidindi, S. B.**; Sanyal, U.; Jagirdar, B. R. "Metal Nanoparticles via the Atom-Economy Green Approach", *Inorg. Chem.* **2010**, *49*, 3965-3967. doi.org/10.1021/ic100431k
39. **Kalidindi, S. B.**; Jagirdar, B. R. "Hydrogen generation from ammonia borane using nanocatalysts", *Journal of the Indian Institute of Science*, **2010**, *90*, 181-187.
40. **Kalidindi, S. B.**; Jagirdar, B. R. "Dehydrogenation of Ammonia-borane in Fluoro Alcohols", *Int. J. Hydrogen Energy* **2010**, *35*, 10819-10825. doi.org/10.1016/j.ijhydene.2010.03.006
41. **Kalidindi, S. B.**; Joseph, J.; Jagirdar, B. R. "Cu<sup>2+</sup>-induced Room Temperature Hydrogen Release from Ammonia-borane", *Energy & Env. Sci.* **2009**, *2*, 1274-1276. doi.org/10.1039/B909448M
42. **Kalidindi, S. B.**; Jagirdar, B. R. "Magnesium/Copper Nanocomposite through Digestive Ripening", *Chem. Asian J.* **2009**, *4*, 835-838. doi.org/10.1002/asia.200800447
43. **Kalidindi, S. B.**; Jagirdar, B. R. "Highly Monodisperse Colloidal Magnesium Nanoparticles by Room Temperature Digestive Ripening", *Inorg. Chem.* **2009**, *48*, 4524. doi.org/10.1021/ic9003577
44. **Kalidindi, S. B.**; Vernekar, A. A.; Jagirdar, B. R. "Co-Co<sub>2</sub>B, Ni-Ni<sub>3</sub>B and Co-Ni-B Nanocomposites Catalyzed Ammonia-borane Methanolysis for Hydrogen Generation", *Phys. Chem. Chem. Phys.* **2009**, *11*, 770-775. doi.org/10.1039/b814216e
45. **Kalidindi, S. B.**; Indrani, M.; Jagirdar, B. R. "First Row Transition Metal Ion-Assisted Ammonia-borane Hydrolysis for Hydrogen Generation", *Inorg. Chem.* **2008**, *47*, 7424-7429. doi.org/10.1021/ic800805r
46. **Kalidindi, S. B.**; Sanyal, U.; Jagirdar, B. R. "Nanostructured Cu and Cu@Cu<sub>2</sub>O Core Shell Catalysts for Hydrogen Generation from Ammonia-borane", *Phys. Chem. Chem. Phys.* **2008**, *10*, 5870-5874. doi.org/10.1039/B805726E

47. **Kalidindi, S. B.**; Jagirdar, B. R. "Synthesis of Cu@ZnO Core-Shell Nanocomposite through Digestive Ripening of Cu and Zn Nanoparticles", *J. Phys. Chem. C* **2008**, *112*, 4042-4048. doi.org/10.1021/jp7100896

#### Book chapters published as author or co-author

1. Bakuru, V. R.; DMello, M. E.; **Kalidindi, S. B.\*** "Biodiesel Production: Feedstocks, Catalysts, and Technologies" *John Wiley & Sons, Ltd*, 2022 & July, Chapter 14, 269-283, ISBN:9781119771333, Doi.org/10.1002/9781119771364.ch14
2. **Kalidindi S. B.\***; DMello M. E.; Bakuru V. R. "Supramolecular Chemistry in Corrosion and Biofouling Protection", CRC Press, 2022 & January, Chapter 6, 93-102, ISBN 9780367769024, DOI:10.1201/9781003169130-7
3. **Kalidindi, S. B.\***; Jagirdar, B. R "Nanocatalysis: Synthesis and Applications" *John Wiley & Sons, Ltd*, 2013 & August, Chapter 19, 679-711, ISBN:9781118148860. doi.org/10.1002/9781118609811.ch19

#### Invited talks/lectures at professional or scientific meetings and conferences

1. Invited talk on "Ammonia Borane: Unlocking Its Multifaceted Potential for Diverse Applications", 3<sup>rd</sup> International Conference on Main-group Molecules to Materials (MMM III), IIT Hyderabad, 09-11, Dec 2023
2. Invited talk on "Assembly of Metal-Organic Framework over Nanoparticle's Surface for Synergetic Catalysis and Toxic Gas Sensing" Recent trends in nanoscience and green chemistry for sustainable development (NCR TNGS-2020), Visakhapatnam, Organized by St. Joseph college for women, 28<sup>th</sup> Jan 2020.
3. Invited talk on "Metal-organic frameworks: Synthesis to applications" Oneday international seminar on Chemical Physics and Engineering, organized by Department of engineering chemistry and physics, Andhra university, Visakhapatnam, 16<sup>th</sup> July 2019.
4. Invited talk on "Supertunable metal-organic frameworks: synthesis and applications" Recent trends in Chemical speciation, Kinetics, and nanomaterials (RTCKSN-2017), organized by Andhra University, 03<sup>rd</sup> March 2017

## Research presentations (oral or poster) at professional or scientific meetings and conferences

1. Suresh Babu Kalidindi "Metal-organic frameworks and their nano hybrids for chemiresistive gas sensing applications" International Conference on recent advances in chemical, pharmaceutical and life processes (RACPL-2019), organized by Andhra University, 15<sup>th</sup> July 2019. (Oral)
2. Suresh Babu Kalidindi "NMR and IR spectroscopy: Basics to Applications" in Workshop titled "Insights on Molecular Spectroscopy", Organized by Maharani's Science college for Women, Bangalore, 28<sup>th</sup> September 2018. (oral)
3. Suresh Babu Kalidindi "Metal-organic frameworks: Synthesis to Applications" Recent Advances in Scientific research: A Glimpse, Organized by Poornaprajna college, Udipi, Karnataka 7<sup>th</sup> December 2018 (oral)
4. Suresh Babu Kalidindi "Characterization of nanomaterials using SEM and TEM" in Synthesis and Characterization of nanomaterials and their engineering applications, organized by SIT Tumkur, 15<sup>th</sup> July 2016. (oral)
5. Suresh Babu Kalidindi "Assembly of Metal-Organic Frameworks over Nanoparticle's Surface to Influence the Catalytic properties" International conference on Nanoscience and technology, Bengaluru organized by Centre for Nano and Soft Matter Science (CeNS), Bengaluru, 22<sup>nd</sup> March 2018. (oral)
6. Suresh Babu Kalidindi "Water stable high surface area zirconium metal-organic framework by linker engineering" MOF2014: 4<sup>th</sup> international Conference on Metal organic frameworks and open framework compounds, Kobe, Japan, 28<sup>th</sup> September 2014. (poster)

## Ph.D Guidance:

**Guided:** Two (Dr. B. Vasudeva Rao, Dr. T. Nany)

**Guiding:** Three (Mr. A. Swamy, Ms.V. Krishnaveni and Hymavathi)

## Research projects (ongoing/completed)

SI No.	Title of the project	Name of the funding agency	Grant amount	Duration	Date of commencement	Date of Completion
1	Design and Development Stable Metal Organic Frameworks (MOFs) with Multiple Functional Sites for Catalysis	Science and Engineering Research Board, Government	17 lakhs	36 months	Feb 2016	March 2019



		of India				
2	Transformative Crystalline Hybrid Porous Materials: Chemical Synthesis and Applications	Department of Science and Technology (DST)	35 lakhs	72 months	June 2016	June 2021
3	Stabilization of Single Metal Atoms/Clusters over Redox Active Two Dimensional Conductive Crystalline Frameworks for Chemiresistive Hydrogen Gas Sensing,	Science and Engineering Research Board, Government of India	49 lakhs	32 months	Feb 2020	Dec 2023
4	Synchrotron X-ray Absorption Spectroscopy Analysis (EXAFS and XANES) of Single Metal Atom Confined Materials for Toxic Gas Sensing,	UGC-DAE Consortium for Scientific Research, Indore	6.3 lakhs	36 months	March 2021	March 2024

### Consultancy Projects (ongoing/completed)

Sl No.	Title of the project	Name of the funding agency	Grant amount	Duration	Date of commencement	Date of Completion
1	"Conversion of Natural Gas to Acetic acid through Halogen Route " Role: Co-Principle Investigator ,	GCP, USA sponsored project	10 lakhs	9 months	April 2016,	October 2016

### Intellectual Property Right (patents/copyright)

1. Indian patent, Suresh Babu Kalidindi, Ms.Thokala Nany, Ms.Valle Krishnaveni, Prof.Basavaiah Keloth, "Metal-Free Hydrogen Sensor and Method of Fabrication There of Application No.: 202241032960, Date of Filing: 09/06/2022, " Granted (Patent No.: 431266, Date of Grant: 09/05/2023)

### Membership of professional bodies:

- Associate Fellow of A.P. Akademi of Sciences, 2020-present
- Member of Royal Society of Chemistry(RSC), London, 2019-present

### Editor of Journal/Reviewer of Journal /Member of Academic Bodies/Advisor:

- Reviewer of various main stream chemistry journals such as Journal of American Chemical Society, Chemical Communications, Journal Materials Chemistry A, ACS applied materials & interfaces etc.

### Workshops/Conferences/Seminars Organized:

- Organizing Committee member of National Science Day 2023, at CTUAP

### Workshops/ Seminars/Webinars attended:

1. Energy Environment Summit Hydrogen Energy Resource & Opportunity HERO-2023, 24th -26th July 2023, IPE, Visakhapatnam, India

### Awards/Fellowships/Distinctions/Achievements:

- **2020** "Received award from *Royal society of chemistry (RSC), London* as one of the top 5% most cited authors in Royal Society of Chemistry journals, 2020."
- **June 2018 to August 2018:** Visiting scientist at University of Ulm (Prof. Radim Berneck group), Germany, under Alexander von Humboldt Foundation renewed program.
- **2015** "DST-INSPIRE Faculty Award"
- **2011-13** "Alexander von Humboldt Fellowship"
- **2010-2011** "Post-doctoral fellowship" from Research Department- Interfacial Systems Chemistry, Ruhr University, Bochum
- **2009-2010** "Best Ph. D thesis award- Prof. S. Soundarajan Gold Medal" from Indian Institute of Science (IISc), Bangalore.
- **2007-08** "Vasudevamurthy-Soundarajan prize" for best seminar during the academic year from Department of Inorganic Physical Chemistry, Indian Institute of Science (IISc), Bangalore
- **2007-2010** "Senior research fellowship (SRF,)" from Council of Scientific and Industrial Research (CSIR), Government of India.
- **2005-2007** "Junior research fellowship (JRF,)" from Council of Scientific and Industrial Research (CSIR), Government of India."