

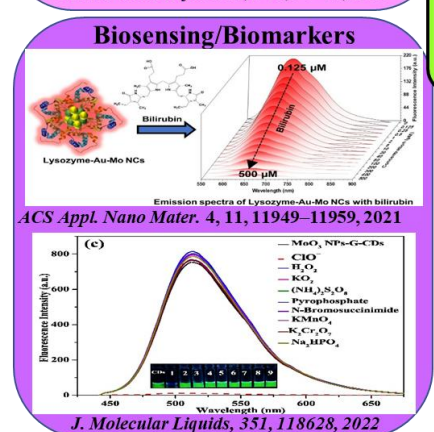
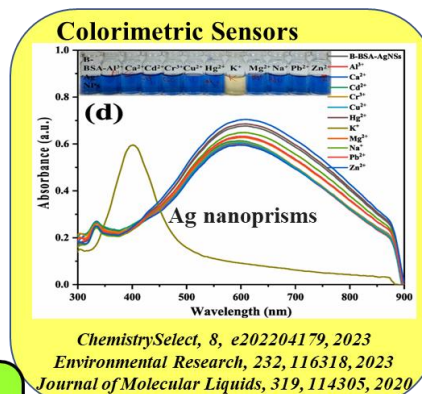
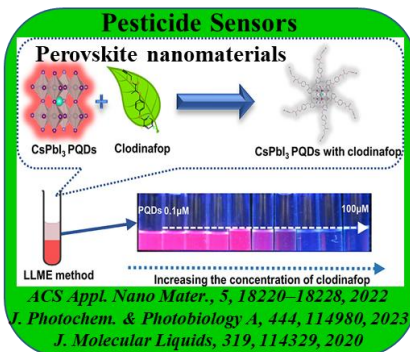
1. Name and Address

	Dr. Suresh Kumar Kailasa Associate Professor Department of Chemistry Sardar Vallabhbhai National Institute of Technology (SVNIT) Surat – 395 007, Gujarat, INDIA E-mail: sureshkumarchem@gmail.com; skk@chem.svnit.ac.in Phone: +91-261-2201730 (O); Mobile: 9033369827 Website: http://www.svnit.ac.in/web/departament/applied_chemistry/faculty_acd.php
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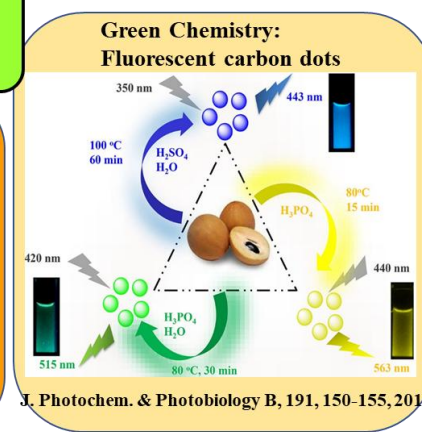
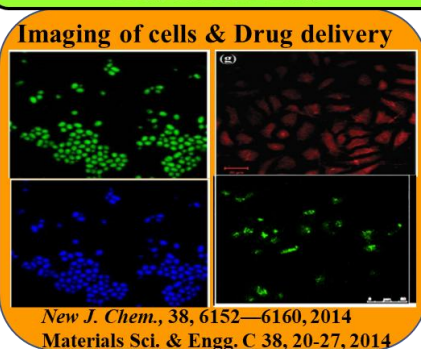
2. Principal Research Interests

Our group focuses on the fundamental and applied problems in analytical, bioanalytical and environmental sciences using a diverse set of functional nanomaterials integrated analytical techniques. We design and fabricate functional nanomaterials to study their outstanding optical properties with various applications ranging from bioimaging to drug delivery and nanosensors (colorimetric and fluorescent probes). Additionally, our group also focuses on the green synthetic approaches for the fabrication of functional nanomaterials and their analytical applications and biological activities. Another major focus in the groups is on the applications of MALDI- and ESI- MS techniques for detection of biomolecules.

Research Areas:	Miniaturized Extraction Techniques and Capillary Electrophoresis	
Functional Nanomaterials	MALDI- and ESI- MS	Plasmonic and Fluorescent Nanosensors
Biosensing & Bioimaging	Drug Delivery	Green and Environmental Chemistry



Functional Nanomaterials & Analytical Chemistry Research Lab



3. Educational Qualifications:

Degree	Subject	College/University	Year
B.Sc.	Botany, Zoology, Chemistry	V. R. College, Nellore, A.P., India	1999 (63.8%)
M.Sc.	Chemistry of Natural Products	S. K. U. P. G. Center, Kurnool, A.P., India	2001 (71.5%)
Ph.D.	Chemistry	Sri Venkateswara University, Tirupati, A.P., India	2005

4. Awards & Honors

- Silver Medal 2024 from Society for Materials Chemistry, Bhabha Atomic Research Center, Mumbai, India 2024
- Brainpool Scientist, Chung-Ang University, Seoul, South Korea (December 2023 – October 2024 & May 2025-July 2025).
- Brainpool Scientist, Chung-Ang University, Seoul, South Korea (August 2017 – December 2017).
- Fellow of the Royal Society of Chemistry (FRSC), Royal Society of Chemistry, UK, 2021.
- Fellow of Society of Pesticide Science India, Division of Agricultural Chemicals, Indian Agricultural Research Institute, New Delhi, 2019.
- Visiting Research Professor, Chung-Ang University, Seoul, South Korea (June 2022 – July 2022)
- Visiting Research Professor, Chung-Ang University, Seoul, South Korea (May 2019 – July 2019)
- Research Professor, Chung-Ang University, Seoul, South Korea (January 2018 – September 2018)
- Visiting Scientist, Department of Chemistry, National Sun Yat-sen University, Taiwan (2010).
- Selected as a Life Member of The National Academy of Sciences, India (NASI), India, 2021.
- Young Scientist and Travel Winner Award by Taiwan Society for Mass Spectrometry, at 4th Asia Oceania Mass Spectrometry Conference and 10th Taiwan Society for Mass Spectrometry Annual Conference (4th AOMSC & 10th TSMS Annual Conference), Taipei, July 8-12, 2013.
- Young Scientist Award by National Environmental Science Academy, New Delhi, India (2008).
- Editorial Board Member, Journal of Integrated OMICS.
- Guest Editor for Special Issue "Nanocomposites for the Sustainable Environment" in Applied Sciences (IF: 2.21), MDPI.
- Guest Editor for Special Issue "Chemical Sciences in Sustainable Technology and Development" in Materials Today Chemistry, Elsevier, (IF: 8.30).
- Guest Editor for Special Issues in Environmental Science and Pollution Research (IF: 5.80) and Inorganic Chemistry Communications (IF: 3.80).
- Advisory Board Member, Sensors and Diagnostics (RSC Publications) Since 2023.

5a. Professional Experience (in India):

Position	Period	Institution	Nature of work
Associate Professor	28.01.2019 – Present	SVNIT, Surat	Teaching and Research
Assistant Professor	27.03.2009 – 27.01.2019	SVNIT, Surat	Teaching and Research
Scientist	January 2006 – August 2006	Sami Labs Limited, Bangalore	Quality control

5b. Professional Experience (Abroad)

Position	Institution	Period
Brainpool Scientist	Chung-Ang University, South Korea	December 2023- October 2024
Visiting Professor	Chung-Ang University, South Korea	June – July 2022
Research Professor	Chung-Ang University, South Korea	May – July 2019
Research Professor	Chung-Ang University, South Korea	January – September 2018
Brainpool Scientist	Chung-Ang University, South Korea	August – December 2017
Visiting Scientist	National Sun Yat-Sen University, Taiwan	February – September 2010
Post-doctoral Fellow	National Sun Yat-Sen University, Taiwan	February 2008 – March 2009
Post-doctoral Fellow	Chonbuk National University, South Korea	September 2006 – September 2007

5c. Administrative work

- Head, Department of Chemistry, SVNIT, Surat, February 2021 – February 2023.
- Professor In-charge, New Class Room Complex, SVNIT, Surat, 2015 - 2021.
- Chief Warden, Nehru Bhavan Hostel, SVNIT, Surat since 16th March 2019 – 15th March 2021.

6a. Publication details (Appendix – I & II)

Details	Role		Total
	First/corresponding author	Co-author	
Research papers	193	40	233
Reviews/Editorials	43	13	56
	236	53	289

Book chapters/Edited books

Details	Role		Total
	First/corresponding author	Co-author	
Book chapters	30	08	38
Edited Books	05 (Elsevier, and Wiley)	-	05

13036 citations as of March 2025. h-index: 61; i10-index: 222

<https://scholar.google.com/citations?user=ybF8xZYAAAAJ&hl=en>

6b. Research guidance (Appendix – III & IV)

	Guided		Thesis/Synopsis submitted		On-going	
	Supervisor	Co-supervisor	Supervisor	Co-supervisor	Supervisor	Co-supervisor
Ph.D	12	02	03	00	07	01
M.Sc	32				03	

6c. Research Projects (Appendix –V)

Projects	Completed	On-going	Total
	DST: 02 (PI), BRNS: 01 (PI), DRDO: 01 (Co-PI)	GSBTM: 01 (PI); DST-FIST: 01 DST-WOSA: 01 (Mentor)	07

6d. Events organized (Appendix –VI)

International conference	03 (Secretary)
STTP/School	08 (Convener 01, Coordinator 07)

6a. Appendix – I (List of Publications)

294. K. P. Makwana, N. I. Malek, **S. K. Kailasa**, Colloidal perovskite nanomaterials: New insights on synthetic routes, properties and sensing applications, **Advances in Colloid and Interface Science**, 344, 103587, **2025, (IF: 19.30)**
293. Harshita, H. Basu, T. J. Park, **S. K. Kailasa**, Blue Emissive Vanadium Nanoclusters-A Robust Nanosensor for the Sensitive Quantification of Selenite as an Oxidative Stress Biomarker, **ChemistrySelect** 10 (24), e01709, **2025, (IF: 2.0)**
292. F. Y. Vadiay, N. I. Malek, T. J. Park, **S. K. Kailasa**, Influence of heteroatom doping in tuning fluorescence of carbon dots for detection of pendimethalin and indoxacarb with different mechanisms, **Emergent Materials**, In press **2024 (IF: 4.80)**
291. Harshita, T. J. Park, **S. K. Kailasa**, "Integration of 6-thioguanine functionalized molybdenum-

- copper bimetallic nanoclusters with fluorescence spectroscopy for the sensitive detection of uric acid in biofluids", **Applied Spectroscopy**, In press, 2024 (IF: 2.20)
290. F. Y. Vadia, N. I. Malek, **S. K. Kailasa**, Synthesis of carbon dots from *Peltophorum pterocarpum* flowers for selective fluorescence detection of carbendazim, **Journal of Fluorescence**, In press, 2024, (IF: 2.60)
 289. Harshita, H. Basu, T. J. Park, **S. K. Kailasa**, Blue Emissive Vanadium Nanoclusters-A Robust Nanosensor for the Sensitive Quantification of Selenite as an Oxidative Stress Biomarker, **ChemistrySelect**, 10, Issue 24, e01709, 2025 (IF: 2.0)
 288. R. Stephanie, X. Ruan, **S. K. Kailasa**, J. P. Park, C. Y. Park, T. J. Park, Nanomaterial-based advanced sensors for rapid marine biotoxin detection: An ethical and promising alternative, **Trends in Analytical Chemistry**, 189, 118255, 2025, (IF: 12.0)
 287. N. V. Ghinaiya, P. A. Garasiya, T. J. Park, **S. K. Kailasa**, One-step synthesis of water stable MAPbBr₃ quantum dots for fluorescence detection of methyl nicotinate as a Tuberculosis biomarker, **New Journal of Chemistry**, In press 2025, (IF: 2.5)
 286. N. V. Ghinaiya, M. R. Patel, T. J. Park, S. K. Kailasa, Synthesis of phenothiazine lead chloride perovskite quantum dots for fluorescence detection of dipicolinic acid in aqueous medium. **Microchimica Acta**, 192, 365, 2025 (IF: 5.30)
 285. **S. K. Kailasa**, K. P. Makwana, M. P. Deshpande, Y. Choi, R. Stephanie, C. Y. Park, Tae Jung Park, Synthesis of trypsin-protected CsPbCl₃ fluorescent nanocrystals for hydroxyl radical sensing, **Microchimica Acta**, 192, 217, 2025 (IF: 5.30)
 284. **S. K. Kailasa**, M. R. Patel, M. P. Deshpande, E. Shin, Y. Choi, T. J. Park, Maltose-functionalized MAPbBr₃ fluorescent perovskite quantum dots with strong water resistance for detection of γ -aminobutyric acid as a neurological biomarker. **Journal of Photochemistry and Photobiology A: Chemistry**, 463, 2025, 116282. (IF: 4.10)
 283. R. Shinde, J. B. Raval, M. Deshpande, E. Shin, W.-S. Chae, **S. K. Kailasa**, T. J. Park, "Argyrea nervosa-derived carbon dots for highly sensitive and selective epinephrine detection", **Inorganic Chemistry Communications**, 174, 113976, 2025 (IF: 4.40)
 282. M. R. Patel, T. J. Park, **S. K. Kailasa**, "Eu³⁺-ion doped strontium molybdate perovskite quantum dots as a turn-off-on fluorescent sensor for simultaneous detection of hypoxanthine biomarker and Fe³⁺ ions", **Microchimica Acta**, 192, 67, 2025 (IF: 5.30)
 281. N. V. Ghinaiya, M. R. Patel, M. P. Deshpande, Y. Choi, T. J. Park, **S. K. Kailasa**, Ligand-free Solvent Evaporation Approach for Synthesis of Water Stable CsPbBr₃@ Pb (OH) Br PQDs for Detection of Hypochlorite in Water Samples. **Journal of Environmental Chemical Engineering**, 13, Issue 1, 115299, 2025 (IF: 7.40)
 280. P. D. D. Singh, Z.V.P. Murthy, **S. K. Kailasa**, Post modification synthesis of hydroxyproline functionalized Zn₃N₂ quantum dots for selective detection of Ni²⁺ ions in water samples, **Inorganic Chemistry Communications**, 172, 113723, 2025 (IF: 4.40)
 279. J. B. Raval, V. N. Mehta, S. Jha, T. J. Park, **S. K. Kailasa**, Synthesis of green emissive *Plectranthus scutellarioides* carbon dots for sustainable and label-free detection of phytohormone indole-3-acetic acid, **Inorganic Chemistry Communications**, 171, 113660, 2025 (IF: 4.40)
 278. K. P. Makwana, M. P. Deshpande, N. I. Malek, T. J. Park, **S. K. Kailasa**, LaSrO₃ perovskite quantum dots as a fluorescent probe for the detection of bilirubin and epinephrine via FRET and IFE mechanisms, **Journal of Photochemistry and Photobiology A: Chemistry**, 461, 116172, 2025 (IF: 4.10)
 277. F. Y. Vadia, N. I. Malek, T. J. Park, **S. K. Kailasa**, "Fluorescence turn-off-on sensing strategy for the detection of Pb²⁺ and metalaxyl fungicide using yellow fluorescent carbon dots from *Cordia dichotoma* fruits", **Luminescence**, 39, e70040, 2024 (IF: 3.20)
 276. F. Y. Vadia, S. Jha, V. N. Mehta, T. J. Park, N. I. Malek, **S. K. Kailasa**. Development of sustainable fluorescence approach with red emissive carbon dots derived from *Grewia asiatica* fruit for the detection of quinalphos. **Journal of Photochemistry and Photobiology A: Chemistry**, 458, 115948, 2025 (IF: 4.10)

275. D. J. Joshi, S. Jha, N. I. Malek, T. J. Park, **S. K. Kailasa**, Doping of Mn^{2+} ion into boron quantum dots with enhanced fluorescence properties for sensing of L-thyroxine biomarker and bioimaging applications. **Spectrochimica Acta Part A**, 326, 125232, **2025 (IF: 4.30)**
274. S. W. Lee, Y. Choi, Y. H. Kim, J. E. Ham, **S. K. Kailasa**, T. J. Park, Fabrication of protein–inorganic biohybrid as an imageable drug delivery system comprising transferrin, green fluorescent protein, and copper phosphate, **Biotechnology and Bioprocess Engineering**, 30, 70–79, **2025, (IF: 2.50)**
273. P. V. Surti, **S. K. Kailasa**, A. K. Mungray, Development and application of novel soil-based membrane in microbial fuel cell for wastewater treatment, **Journal of the Taiwan Institute of Chemical Engineers**, 166, Part 2, 105540, **2025 (IF: 5.50)**
272. V. A. Sadhu, S. Jha, V. N. Mehta, S. R. Muditana, T. J. Park, **S. K. Kailasa**, Green Synthetic Approach for the Preparation of Blue Emitting Gold Nanoclusters: A Simple Analytical Method for Detection of Hexaconazole Fungicide, **Journal of Fluorescence**, 35, 2943–2956, **2025 (IF: 2.60)**
271. F. Y. Vadia, V. N. Mehta, S. Jha, T. J. Park, N. I. Malek, **S. K. Kailasa**, Development of simple fluorescence analytical strategy for the detection of triazophos using greenish-yellow emissive carbon dots derived from *Curcuma longa*, **Journal of Fluorescence**, 35, 497–508, **2025 (IF: 2.70)**
270. S. Nayak, S. Borse, S. Jha, V. N. Mehta, Z. V. P. Murthy, T. J. Park, **S. K. Kailasa**, Development of copper nanoclusters-based turn-off nanosensor for fluorescence detection of two pyrethroid pesticides (cypermethrin and lambda-cyhalothrin), **Journal of Fluorescence**, 35, 509–520, **2025 (IF: 2.70)**
269. N. V. Ghinaiya, V. N. Mehta, S. Jha, T. J. Park, **S. K. Kailasa**, Synthesis of greenish-yellow fluorescent copper nanocluster for the selective and sensitive detection of fipronil pesticide in vegetables and grain samples, **Journal of Fluorescence**, **2024, In press (IF: 2.70)**
268. V. A. Sadhu, S. Jha, T. J. Park, **S. K. Kailasa**, Green emissive molybdenum nanoclusters for selective and sensitive detection of hydroxyl radical in water samples, **Journal of Fluorescence**, 35, 855–865, **2025, (IF: 2.70)**
267. M. R. Patel, P. Chetti, T. J. Park, **S. K. Kailasa**, "Fluorescence sensing of Bilirubin using water stable ethylenediaminetetraacetic acid functionalized $CsPbBr_3$ perovskite quantum dots", **ACS Applied Nano Materials**, 7, 19, 22640–22649, **2024 (IF: 5.30)**
266. B. Thamminana, M. R. Patel, M. P. Deshpande, T. J. Park, **S. K. Kailasa**, Fluorescence turn-off detection of myoglobin as a cardiac biomarker using water-stable L-glutamic acid functionalized cesium lead bromide perovskite quantum dots. **Microchim Acta**, 191, 674, **2024 (IF: 5.30)**
265. L. K. Velamala, M. R. Patel, M. P. Deshpande, A. R. Gul, T. J. Park, S. K. Kailasa, Fluorescence detection of superoxide anion with $CsPbBr_3$ perovskite quantum dots in aqueous media. **Journal of Molecular Liquids**, 414, Part B, 126211, **2024 (IF: 5.30)**
264. D. J. Joshi, S. Jha, N. I. Malek, T. J. Park, **S. K. Kailasa**, Facile synthesis of Eu^{3+} -doped niobium carbide MXene quantum dots for parallel detection of hypoxanthine and fluoxetine via fluorescence quenching and enhancement mechanisms. **Microchim Acta** 191, 621, **2024. (IF: 5.30)**
263. J. R. Bhamore, J. Park, **S. K. Kailasa**, T. J. Park, Fabrication of highly fluorescent graphene quantum dots for quantification of As^{3+} ion using modified cellulose paper, **Luminescence**, 39, e4895, **2024 (IF: 3.20)**
262. V. A. Sadhu, P. A. K. Sharma, S. Jha, T. J. Park, **S. K. Kailasa**, Sustainable analytical approach for selective fluorescence sensing of sulfosulfuron using copper nanoclusters from *Tinospora cordifolia* leaves extract. **Environmental Nanotechnology Monitoring and Management**, 22, 101003, **2024.**
261. M. R. Patel, P. D. D. Singh, Harshita, H. Basu, Y. Choi, Z. V. P. Murthy, T. J. Park, **S. K. Kailasa**, Single crystal perovskites: Synthetic strategies, properties and applications in sensing, detectors, solar cells and energy storage devices, **Coordination Chemistry Reviews**, 519, 216105, **2024 (IF: 20.30)**

260. N. V. Ghinaiya, Y. Choi, T. J. Park, **S. K. Kailasa**, Synthesis of fluorescent La:MnMoO₄ perovskite oxide nanoprobe for detection of indoxacarb in food samples. **Inorganic Chemistry Communications**, 169, 113031, **2024 (IF: 4.40)**
259. V. A. Sadhu, T. J. Park, **S. K. Kailasa**, Synthesis of green fluorescent carbon dots using cysteine and maltose as ecofriendly ligands for the detection of venlafaxine anti-depression drug in pharmaceutical and plasma samples. **Inorganic Chemistry Communications**, 168, 112980, **2024 (IF: 4.40)**
258. P. J. Patel, S. Gupte, R. Naik, **S. K. Kailasa**, S. Jha, S. B. Patel, V. N. Mehta, Fruit Peel Derived Carbon Dots for Improved Curcumin Delivery: A Promising Strategy for Enhanced Antimicrobial and Antioxidant Activity. **ChemistrySelect**, 9, e202400762, **2024 (IF: 1.90)**
257. K. Molatrati, S. Borse, S. Ghosh, S. Jha, Z. V. P. Murthy, **S. K. Kailasa**, T. J. Park, Biosynthesis of copper nanoclusters for fluorescence detection of bilirubin in biofluids, **Luminescence**, 39, e4866, **2024 (IF: 3.20)**
256. V. A. Sadhu, S. Jha, S. Ghosh, V. N. Mehta, T. J. Park, **S. K. Kailasa**, Senna auriculata extract-assisted biogenic synthesis of yellow emissive gold nanoclusters for quantitative detection of glyphosate in food and environmental samples, **Environmental Nanotechnology, Monitoring & Management**, 22, 100964, **2024**.
255. D. J. Joshi, S. Jha, N. I. Malek, T. J. Park, **S. K. Kailasa**, Tuning of fluorescence in titanium carbide MXene nanosheets with La³⁺ ion doping for the recognition of creatinine biomarker in biofluids, **FlatChem**, 47, 100719, **2024 (IF: 5.90)**
254. R. Pansuriya, T. Patel, K. Singh, A. Al Ghamdi, N. Kasoju, A. Kumar, **S. K. Kailasa**, N. I. Malek, Self-healable, stimuli-responsive bio-ionic liquid and sodium alginate conjugated hydrogel with tunable Injectability and mechanical properties for the treatment of breast cancer, **International Journal of Biological Macromolecules**, 277, 134112, **2024 (IF: 7.70)**
253. I. Pandya, S. Mishra, T. Patel, N. Keppeler, S. Kumar, V. K. Aswal, **S. K. Kailasa**, O. El Seoud, N. I. Malek, 5-Fluoro uracil mediated transformation of surface-active ionic liquid based micellar nanoaggregates into pH-responsive vesicular nanoaggregates as promising drug delivery vehicle, **Journal of Molecular Liquids**, 409, 125443, **2024 (IF: 5.30)**
252. Harshita, S. Jha, H. Basu, T. J. Park, **S. K. Kailasa**, Green synthesis of copper nanoclusters using Cissus quadrangularis leaves extract and cysteine as cooperative ligands for the detection of Fe³⁺ ion and 2,6-dipicolinic acid in biofluids via fluorescence turn off–on mechanism, **Journal of Molecular Liquids**, 409, 125438, **2024 (IF:5.30)**
251. M. Jain, H. Ukani, S. Kumar, V. K. Aswal, S. K. Kailasa, O. A. El Seoud, N. I. Malek, Unveiling the Potential of Surface Active Ionic Liquids Based Catanionic Vesicles for Tailored Delivery of Curcumin and its Enhanced Therapeutic Efficacy, **ChemistrySelect**, 9, e202401144, **2024 (IF: 1.90)**
250. R. Kulkarni, L. P. Lingamdinne, J. R. Koduru, R. R. Karri, **S. K. Kailasa**, N. M. Mubarak, Yoon-Y. Chang, M. H. Dehghani, Exploring the Recent Cutting-Edge Applications of CNTs in Energy and Environmental Remediation: Mechanistic Insights and Remarkable Performance Advancements, **Journal of Environmental Chemical Engineering**, 12, 113251, **2024 (IF: 7.40)**
249. M. R. Patel, T. J. Park, **S. K. Kailasa**, Synthesis of Green Fluorescence CsPbBr₃ Perovskite Quantum Dots Via Probe Sonication for the Detection of Isoprothiolane Fungicide in Food Samples, **Journal of Cluster Science**, 35, 2105–2116, **2024 (IF: 2.70)**
248. D. J. Joshi, N. I. Malek, **S. K. Kailasa**, Fabrication of two-dimensional fluorescent stanene oxide nanosheets for the detection of cortisone in biofluids, **Materials Today Communications** 39, 109048, **2024 (IF: 3.70)**
247. M. Amarnath, H. Basu, R. Basu, S. Singh, P. Chandwadkar, C. Acharya, **S. K. Kailasa**, C. N. Patra, Self-assembled Cu doped NiO loaded reduced graphene oxide: Multifunctional photothermal framework for interfacial water evaporation, disinfection and power generation, **Materials Today Sustainability**, 26, 100725, **2024 (IF: 7.10)**
246. R. Kulkarni, L. P. Lingamdinne, J. R. Koduru, R. R. Karri, Y. Y. Chang, **S. K. Kailasa**, N. M. Mubarak, Recent Advanced Developments and Prospects of Surface Functionalized MXenes-

- Based Hybrid Composites toward Electrochemical Water Splitting Applications, **ACS Materials Letters**, 6, 2660–2686, **2024 (IF: 9.60)**
245. R. Pansuriya, T. Patel, S. Kumar, V. K. Aswal, N. Raje, C. Hoskins, **S. K. Kailasa**, N. I. Malek, Multifunctional Ionic Hydrogel-Based Transdermal Delivery of 5-Fluorouracil for the Breast Cancer Treatment, **ACS Applied Bio Materials** 7, 3110-3123, **2024**.
 244. P. V. Surti, **S. K. Kailasa**, A. K. Mungray, Development of a Novel Composite Polymer Electrolyte Membrane for Application as a Separator in a Dual Chamber Microbial Fuel Cell, **Industrial & Engineering Chemistry Research** 63, 5182-5194, **2024 (IF: 3.80)**
 243. V. A. Sadhu, S. Jha, T. J. Park, **S. K. Kailasa**, Fluorescence ‘turn-off-on’ assays for neomycin sulphate and K⁺ ions with orange-red fluorescent molybdenum nanoclusters, **Luminescence**, 39, e4709, **2024 (IF: 3.20)**
 242. P. D. D. Singh, Z. V. P. Murthy, **S. K. Kailasa**, Zinc nitride quantum dots as an efficient probe for simultaneous fluorescence detection of Cu²⁺ and Mn²⁺ ions in water samples, **Microchimica Acta** 191, 161, **2024 (IF: 5.30)**
 241. L. Hejji, Y. A. El H. Ali, A. Azzouz, N. Raza, L. P. Villarejo, **S. K. Kailasa**, Recent insights into molecularly imprinted membrane technology for removal of pollutants from environmental water: From organic molecules to metal ions, **Journal of Water Process Engineering** 58, 104852, **2024 (IF: 6.30)**
 240. M. Jain, R. Pansuriya, S. Kumar, V. K. Aswal, **S. K. Kailasa**, N. I. Malek, Sodium Chloride Induced pH and Temperature Responsive Biocompatible Hydrogel of Choline Oleate for Transdermal Drug Delivery of Doxorubicin, **ChemistrySelect**, 9, e202303162, **2024 (IF: 1.90)**
 239. R. Pansuriya, J. Douth, B. Parmar, **S. K. Kailasa**, N. Mahmoudi, C. Hoskins, N. I. Malek, A bio-ionic liquid based self-healable and adhesive ionic hydrogel for the on-demand transdermal delivery of a chemotherapeutic drug, **J. Mater. Chem. B**, 12, 5479-5495, **2024 (IF: 6.10)**
 238. M. Jain, R. Pansuriya, R. Thakur, A. K. Saini, S. Kumar, V. K. Aswal, **S. K. Kailasa**, N. I. Malek, PVA/guanidinium oleate transdermal patch as a pH-responsive drug delivery system for the localized and targeted delivery of anticancer drugs, **Mater. Adv.**, 5, 1998-2011, **2024 (IF: 5.20)**
 237. **S. K. Kailasa**, Harshita, M. R. Patel, J.R. Koduru, T. J. Park, Recent advances of molybdenum-based nanostructures for molecular and ionic species sensing and separation applications, **Coordination Chemistry Reviews**, 501, 215595, **2024 (IF: 20.60)**
 236. D. J. Joshi, S. Jha, N. I. Malek, T. J. Park, **S. K. Kailasa**, Rational design of niobium carbide MXene quantum dots decorated with arginine for the fluorescence sensing of superoxide anion in *Saccharomyces cerevisiae* cells, **Sensors and Actuators B: Chemical**, 404, 135226, **2024 (IF:8.40)**
 235. M. R. Patel, T. J. Park, **S. K. Kailasa**, Eu³⁺ ion-doped strontium vanadate perovskite quantum dots-based novel fluorescent nanosensor for selective detection of creatinine in biological samples, **Journal of Photochemistry and Photobiology A**: 449, 115376, **2024 (IF: 4.30)**
 234. J. B. Raval, V. N. Mehta, S. Jha, T. J. Park, **S. K. Kailasa**, Biosynthesis of green-emissive copper nanoclusters from *Plectranthus scutellarioides* extract for the detection of terbufos in carrot and water samples, **ACS Food Sci. Technol.**, 4, 1, 272–281, **2024 (IF: 2.30)**
 233. T. H. Kim, C. H. Cho, S. Y. Kweon, S. M. Kim, **S. K. Kailasa**, J. P. Park, C. Y. Park, T. J. Park, Development of fluorometric detection for saxitoxin with its specific binding peptide, **Sensors & Diagnostics**, 3, 301-308, **2024**.
 232. A. R. Gul, J. Bal, P. Xu, S. Ghosh, T. Yun, **S. K. Kailasa**, Y. H. Kim, T. J. Park, Serodiagnosis of multiple cancers using an extracellular protein kinase A autoantibody-based lateral flow platform, **Biosensors and Bioelectronics** 246, 115902, **2024 (IF:12.60)**
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5. **S. K. Kailasa**, Hui-Fen Wu, “Proteomic Profiling by Nanomaterials-Based Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry for High-Resolution Data and Novel Protein Information Directly from Biological Samples” Anton Posch (ed.), Proteomic Profiling: Methods and Protocols, Methods in Molecular Biology, Vol. 1295, Volume 1295 of the series Methods in Molecular Biology pp 479-496, DOI 10.1007/978-1-4939-2550-6_34, Springer Science+Business Media New York 2015. Online ISBN: 978-1-4939-2550-6
4. **S. K. Kailasa** and Hui-Fen Wu, Lysozymes: Sources, Functions and Role in Disease. Xu Guan Maang and Wei F. Cheung Chapter 5: Functions of Lysozymes and their identification of by MALDI-MS. Nova Science Publishers, 2013, 155-169. ISBN: 978-1-62257-842-9.
3. **S. K. Kailasa**, Hui-Fen Wu, Cysteine: Biosynthesis, Chemical Structure and Toxicity. Chapter 3: Toxicity of Cysteine: Towards Biopathways. Editors: Fyodor V Chorkina, Andrey I. Karataev, Nova Science Publishers, 2012, 61-84. ISBN: 978-1-62081-386-7.
2. **S. K. Kailasa**, Hui-Fen Wu, V.N. Mehta, Quantum Dots: Applications, Synthesis and Characterization. Orion Ciftja Chapter 5: Prospects of Engineering Quantum Dots Applications in Ultrasensitive Assays, Nova Science Publishers, 2012, 69-109. ISBN: 978-1-61942-968-0.
1. **S. K. Kailasa**, Hui-Fen Wu, Inorganic Contaminants: Sample Preparation Approaches, Volume 3.37 Edited in Comprehensive Sampling and Sample Preparation (1st Edition) Edited by Pawliszyn, J.; Le, X. C.; Li, X-F.; Lee, H. K.; Eds; Elsevier, Academic Press: Oxford, UK, pp 743–782, 2012. eBook ISBN: 9780123813749

6b. Appendix – III **Ph.D Guidance On-going**

S. No	Name of student	Adm. No.	Title of the Ph.D. thesis	Name of Supervisor (s)
1	Mrs. Parini Surti	DS19CY003	Microbial-based fuel cells	Dr S. K. Kailasa, Dr A. K. Mungray, Co-supervisor
2	Mr. Mayur Patel	D20CY003	Novel nanostructure materials and their analytical applications	Dr S. K. Kailasa
3	Ms. Harishita Goel	DS20CY012	Metal nanoclusters and their applications	Dr S. K. Kailasa
4	Ms. Singh Pooja	D21CY003	MXenes: Synthesis, Characterization and Analytical	Dr S. K. Kailasa, Prof. Z. V. P. Murthy,

			Applications	Co-supervisor
5	Ms. Juhi Raval	D21CY015	Green Chemistry approaches for pesticides and hormones sensing	Dr. S. K. Kailasa
6	Mr. Karthik Makwana	D22CY004	Perovskite nanostructures for sensing applications	Dr. S. K. Kailasa, Dr. N. I. Malek, Co-supervisor
7	Ms. Jamila Husain Kagdi	D23CY010	Course work	Dr. S. K. Kailasa, Dr. V. N. Mehta, Co-supervisor Dr. S. Jha, Co-supervisor
8	Ms. Pinal Garasiya	D24CY002	Course work	Dr. S. K. Kailasa Dr. N. I. Malek Co-supervisor

Doctoral students (Awarded/Thesis/Synopsis submitted)

Sr. No	Name of student	Title of the Ph.D. thesis	Year	Present position
11.	Ms. Vibhuti Sadhu (D20CY004)	Development of analytical methods with 0D fluorescent nanomaterials for sensing applications Synopsis submitted	2024	
10.	Ms. Foziya Yusuf Vadia (DS19CY005)	Studies on sustainable approaches for the fabrication of carbon dots for pesticides and metal ions sensing applications (Co-supervisor: Dr. Naved Malek) Synopsis submitted	2024	DST Women Scientist
9.	Mr. Ghanaiya Nirav (D19CY006)	Synthesis and characterization of fluorescent nanomaterials (perovskite, MoO _x and Cu) for analytical and bioanalytical applications, Thesis to be submitted	2024	Scientist, AMI Organics Ltd., Surat
8.	Ms. Joshi Dharabhen (D19CY004)	Synthesis of Borophene, MXenes, Metal oxide and Metal Nanostructures for Fluorescence Sensing Applications (Co-supervisor: Dr. Naved Malek), Thesis to be submitted	2024	
7.	Ms. Borse Shraddha Kishor (D18CY004)	Design and synthesis of metal nanoclusters for detection of drugs and biomarkers (Co-supervisor: Prof. Z. V. P. Murthy)	2023	Teaching Assistant, SVNIT, Sruat
6.	Mr. Kateshiya Mehulkumar (D17CY004)	Surface Modifications of Nanomaterials Synthesis Characterization and Analytical Applications (Co-supervisor: Dr. Naved Malek)	2022	Assistant Professor, Govt. Degree College, Gujarat
5	Dr. Desai Mittal Lallubhai (D15CY002)	One-step Synthetic Approaches for Preparation of Fluorescent Hybrid Nanomaterials Characterization and Applications	2020	Assistant Professor, PP Savani University
4	Dr. Bhamore Jigna Rajeshkumar	Synthesis and characterization of ultra-small fluorescent nanoparticles for	2019	Post-doctoral fellow, New Jersey Institute

	(D14CY002)	chemical sensing and bioimaging applications		of Technology, USA
3	Dr. Jigneshkumar V. Rohit (D12CY005)	Molecular Assembly of Dithiocarbamate Derivatives on Metal Ag and Au Nanoparticles for Colorimetric Detection of Pesticides	2017	Assistant Professor, Department of Chemistry, NIT Srinagar, Kashmir, India
2	Dr. Karuna A. Rawat (DS11CY001)	Organic framework on metal Au and Ag nanoparticles for colorimetric sensing of biomolecules and drugs	2016	Teaching Assistant, SVNIT, Surat, India
1	Dr. Vaibhavkumar N. Mehta (DS10CY352)	Functionalization of dithiocarbamate derivatives on metallic nanoparticles (Au and Ag) for colorimetric sensing of metal ions and green synthetic approach for preparation of carbon dots and their imaging applications	2015	Assistant Professor, Navsari Agricultural University India

Doctoral students (Co-Supervisor)

Sr. No.	Name of student	Title of the Ph.D. thesis	Name of Supervisor (s)	Year
1	Monika Jain	Stimuli Responsive Microstructural Aggregation of Biocompatible Surface Active Ionic Liquids as the New Age Drug Carrier	Dr. N. I. Malek, Supervisor Dr. S. K. Kailasa, Co-supervisor	2023
2	Rajput Sargam Madanlal	Modulating Interfacial and Micellar Properties of the Surfactants through External Additives Leading to Various Nano-aggregates	Dr. N. I. Malek, Supervisor Dr. S. K. Kailasa, Co-supervisor	2019

Appendix – IV **(M.Sc. Students Dissertations Guided: 19)**

S. No.	Name of the student	Register Number	Title of the Dissertation	Year
33	Thamminana Bhargava	I19CY031	Analytical method development with water stable cesium lead bromide perovskite quantum dots for fluorescence sensing of myoglobin	2024
32	Likith Kumar Velamala	I19CY016	Design and synthesis of water dispersible CsPbBr ₃ perovskite quantum dots for selective fluorescence detection of superoxide anion in water samples	2024
31	Smit H. Morawala	I19CY003	Fluorescence detection of imidacloprid using copper nanoclusters derived from <i>Cissus quadrangularis</i>	2024
30	Mr. Nayak satyaprakash Shyamsundar	I18CY002	Effect of copper salts for synthesis of copper nanoclusters from <i>Withania somnifera</i> plant extract for sensing of cypermethrin and λ -cyhalothrin	2023
29	Mr. Piyush AK Sharma	I18CY029	Synthesis of lanthanum based high entropy perovskite oxides for photovoltaic applications	2023
28	Ms. Molatrati Kousalya	I18CY032	Fluorescence sensing of bilirubin using copper nanoclusters from <i>Holarrhena pubescens</i> leaves extract	2023
27	Mr. Sandesh	I17CY034	Functionalization of silver nanoprism with lipoic acid	2022

	Yele		for colorimetric detection of three biomarkers	
26	Ms. D. Sai Snigdha	I17CY021	Colorimetric detection of uric acid using melamine functionalized gold nanostars	2022
25	Ms. Bhattu Swapna	I16CY010	Role of organic molecules in the synthesis and applications of carbon dots	2021
24	Mr. Potnuru Tirumala Rao	I15CY009	Synthesis of fluorescent CDs from Tabernaemontana divaricate: Characterization & applications	2020
23	Mr. Upadhyay Maharshi	I15CY027	Synthesis of different sizes of silver nanoparticles: Functionalization and applications	2020
22	Mr. Sunil Pankaj	I15CY011	Titanium Dioxide Reduction by Neogen1000 in Decorative Paints	2020
21	Ms. Jinet Susan Johny	I15CY022	Fabrication of Carbon Dots from Moringa olifera: Characterization and Applications	2020
20	Mr. Mandan Vishnu Vardhan	I14CY003	Fluorescence enhancement mechanism for detection of monocrotophos using carbon dots derived from Ziziphus fruit (Indian pulp)	2019
19	Mr. Vishal Dhavle	I14CY043	Functionalization of silver nanoparticles with glutathione-lactose derivative for colorimetric sensing of thiram	2019
18	Ms. Ravalika Sajja	I14CY028	Hexacuclear ruthenium complexes as a potential electrolyte for non-aqueous redox flow batteries	2019
17	Ms. Soujanya Akavaram	I14CY020	Synthesis of bimetallic (Au-Ag) nanoclusters using trypsin as a template: Analytical applications	2019
16	Ms. Snehal Mahyavanshi	I14CY013	Pepsin assisted synthesis of gold-copper nanoclusters for sensing of alfuzosin and Mn^{2+} ions	2019
15	Ms. Disha Gupta	I13CY032	Green synthetic approach for the synthesis of carbon dots and their applications	2018
14	Mr. Subhadeep Ghosh	I13CY005	Trypsin mediated synthesis of fluorescent AuNCs for the detection of drugs and metal ions	2018
13	Ms. Gincy George	I12CY027	Ractopamine hydrochloride as a novel reagent for synthesis of gold nanoparticles and their analytical applications	2017
12.	Ms. Raveena Meena	I12CY018	Dapsone mediated synthesis of gold nanoparticles for colorimetric sensing of Al^{3+} , Fe^{2+} and Cr^{3+} ions	2017
11.	Ms. K. Snehalatha	I11CY012	Design and synthesis of novel bi-functional ligands (μ and δ opioid agonist) for the treatment of pain	2016
10	Mr. Kiran Rana	I11CY017	Unmodified gold nanoparticles as a probe for simultaneous colorimetric detection of six pesticides	2016
9.	Ms. Dhanshri Gyanchand	I10CY041	Green synthetic approach for the synthesis of fluorescent Cu NCs and their applications	2015
8.	Ms. Majithiya Rutuben Pratapbhai	I10CY035	Simple and sensitive detection of glyphosate herbicide in environmental and food samples using 2-mercapto-5-nitrobenzimidazole capped silver nanoparticles as a colorimetric sensor	2015
7.	Ms. Neelima Betha	I09CY006	Dicoumarol as a novel reagent for synthesis of gold nanoparticles for sensing of lysozyme and cysteine: Preparation of fluorescent carbon dots for cell imaging	2014
6.	Ms. Jigna Bhamore	I08CY021	Synthesis of water-dispersible gold nanoparticles by tryptophan, ascorbic acid, hydroxylamine hydrochloride as reducing and capping agents: as cysteine and glutathioine-selective colorimetric	2013

			probes	
5.	Mr. Gaurang Patel	I08CY023	Carbendazim pesticide recognition by facile 4-aminothiophenol assembly on silver nanoparticles	2013
4.	Mrs. Richita Modi	I08CY026	Preparation of bifunctionalized silver nanoparticles for the colorimetric sensing of Cr^{3+} and Ba^{2+} ions	2013
3.	Mrs. Sweta Laliwala	I08CY028	Synthesis of citrate-protected silver nanoparticles as colorimetric sensors for the selective and sensitive detection of triptan-family drugs (Antimigrain agents)	2013
2.	Mr. Nishith P. Gandhi	I07CY019	Effect of metal ions (Cu^{2+} , Ni^{2+} , Mn^{2+}) doping in ZnS semiconductor nanoparticles as sensors.	2012
1.	Mr. Utkarsh B. Patel	I07CY017	4-aminothiophenol capped gold nanoparticles as colorimetric sensor for the selective sensing of cobalt ions in water samples	2012

6c. Appendix-V (On-going and Completed Projects)

Sl. No.	Title of Project	Funding Agency	Amount	Duration
8	Development of eco-friendly optical probes for monitoring of important growth hormones and pesticides in agricultural soil	GSTBTM GSBTM/JD(R&D)/662/2022-23/00292169,	Rs. 47,27,640/- (Rs. 23,12,320/ (SVNIT) & Rs.24,15,320)	2023-2025
7	Designing and synthesis of fluorescent metal organic frameworks for sensing applications (Mentor)	DST-WOS-A	Rs. 24,45,320/-	2023-2025
6	DST-FIST 2022, Coordinator, PIG	DST	Rs. 203,00,00/-	2022-2027
5	Designing of Green Synthetic Approaches for Atomically Precise Nanoclusters for Dictating their Specific Interactions Development of Miniaturized Analytical Methods, Role: PI	DST- EMR/2016/00262 1	Rs. 35,04.655/-	2017 - 2021
4	Development of surface functionalized metal doped nanoparticles as fluorescent probes for sensing trace level of heavy metals in environmental matrice, Role: PI	BRNS, (Ref. No. 37(2)/14/07/2015/ BRNS/10401)	Rs. 31,31,400/-	2015 - 2019
3	Application of Benthic Microbial Fuel Cell (BMFC) for powering Naval Sensors, Role: Co-PI	NRB, DRDO	Rs. 23,19,800/-	2015-2018
2	Organic framework on quantum dots and their uses as fluorescent probes for selective reorganization of metal ions, Role: PI	Dean (R&C)/1503/2013 -2014, dated 17.02.2014	Rs. 10,00,000/-	2014-2016
1.	“Design, synthesis and characterization of functionalized nanoparticles with dithiocarbamate derivatives for selective sensing of pesticides” Role: PI	DST Ref. No: DST/ SR/FT/CS- 54/2010	Rs. 20,90,000/-	2011 - 2015

6d. Appendix-V (Events Organized)

International Conferences

- As a Secretary, 2nd Virtual International Conference on Chemical Sciences in Sustainable Technology and Development, jointly organized by Department of Chemistry, SVNIT, Surat,

India and Department of Chemistry, Chung-Ang University, South Korea, 24 – 26th November 2021.

2. **As a Secretary**, Virtual International Conference on Physical Sciences, jointly organized by DoC, DoP and DoM, SVNIT, Surat, India, 05 – 06th February 2021.
1. **As a Secretary**, Virtual International Conference on Chemical Sciences in Sustainable Technology and Development, Jointly organized by Department of Chemistry, SVNIT, India and Department of Chemistry, Chung-Ang University, South Korea, 01 – 03rd December 2020.

STTP& Schools

8. **As a Coordinator**, 15th School on Analytical Chemistry (SAC-15), jointly organized by Department of Chemistry, SVNIT, Surat, India and Analytical Chemistry Division, Bhabha Atomic Research Center (BARC), Mumbai, India 12 – 19th December 2022.
7. **As a Coordinator**, one week online short term training programme on “Journey of Analytical Techniques in Chemical and Biological Sciences (JATCBS 2022)”, organized by Department of Chemistry, SVNIT, Surat, India, 18 – 22nd April 2022.
6. **As a Convener**, one week online short term training programme on Organic-Inorganic Hybrid Materials (OIHM 2021), organized by Department of Chemistry, SVNIT, Surat, India, 4 – 8th October 2021.
5. **As a Coordinator**, one week online short term training programme on Micro- & Macro-Chemistry Meets Technological Developments (M²CMTD-2021), organized by Department of Chemistry, SVNIT, Surat, India, 5 – 9th July 2021.
4. **As a Coordinator**, one week short term training programme on “Journey of Analytical Techniques in Chemical and Biological Sciences (JATCBS 2016)”, organized by Department of Chemistry, SVNIT, Surat, India, 19 – 24th December 2016.
3. **As a Coordinator**, one week short term training programme on Micro- & Macro- Chemistry Meets Technological Developments (M²CMTD-2016), organized by Department of Chemistry, SVNIT, Surat, India, 6-10th October 2016.
2. **As a Coordinator**, One week short term training programme on “Advanced Materials, Characterization and Applications in Materials Science and Engineering (AMCAME-2013)”, organized by Department of Chemistry, SVNIT, Surat, India, 2 – 6th September 2013.
1. **As a Co-coordinator**, One week staff development programme on Recent Developments and Future Trends of Nanotechnology in Modern Science, organized by Department of Chemistry, SVNIT, Surat, India, 21 – 25th December 2009.

7a. Patent: Apparatus and method of liquid nitrogen assisted spray ionization mass spectrometry (Ref. No: 101129644), Taiwan Patent, inventors, Hui-Fen Wu, Suresh Kumar Kailasa, Nazim Hassan.

7b. Presentations in National and International Conferences

International Conferences

1. “Ultra-fast analysis of hepatic ACS, CPT 1 and ACC mRNA levels in rats using reverse transcriptase; PCR and microchip electrophoresis with laser induced fluorescence detector” **Suresh Kumar Kailasa**, Youn Soo Cha and Seong Ho Kang, The 9th Asian Conference on Analytical Science, November 4-8, 2007, Jeju Island, South Korea.
2. “Comparison of ZnS semiconductor nanoparticles capped with various functional groups as the matrix and affinity probes for rapid analysis of cyclodextrins and proteins in the SALDI-TOF mass spectrometry” **Suresh Kumar Kailasa**, Kamatam Kiran and Hui-Fen Wu, International Chemical Conference, Taipei Analytical Chemistry, October 2 – 5, Kaohsiung, Taiwan.
3. “Synthesis of electrostatically self assembled azide stabilized ZnS nanoparticles as affinity probes for the enrichment, desalting and rapid analysis of peptides and proteins by direct MALDI-TOF-MS” Lokesh Shastri, **Suresh Kumar Kailasa**, Hui-Fen Wu, 18th International Mass Spectrometry Conference, Bremen, Germany, August 30 – September 4th 2009.

4. "Functionalized CdS nanoparticles for improved mass resolution to large protein molecules in MALDI-TOF-MS" **Suresh Kumar Kailasa** and Hui-Fen Wu, The 58th Annual Conference on Mass Spectrometry (ACMS) and The 1st Asian and Oceanic Mass spectrometry Conference (AOMSC), Tsukuba, Japan, June 16th – 18th 2010.
5. "Functionalized QDs with dopamine dithiocarbamate as matrix for the quantification of small molecules and as affinity probes for the rapid identification of microwave tryptic digest proteins by MALDI-MS" **Suresh Kumar Kailasa**, Hui-Fen Wu, Page No 74, 2nd International Congress on Analytical Proteomics, Ourense, Spain, July 18th – 20th 2011.
6. "Functionalized silver selenide nanoparticles as extracting probes for the analysis of peptides by using liquid liquid microextraction coupled with MALDI mass spectrometry" **Suresh Kumar Kailasa**, Hui-Fen Wu, 14th International Conference of International Academy of Physical Sciences on Physical Sciences Interface with Humanity, SVNIT, Surat, December 22nd – 24th 2011.
7. "Applications of Engineered Nanomaterials in Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry for Biomolecules" **Suresh Kumar Kailasa**, Hui-Fen Wu, World Congress on Biotechnology 2011, Hyderabad, India, March 21st – 23rd 2011.
8. "Applications of Surface-engineered Nanoparticles in MALDI Mass spectrometry for Biomolecules Assays" **Suresh Kumar Kailasa**, Hui-Fen Wu, International Conference on Nanoscience and Nanotechnology, Hyderabad, India, January 20th – 23rd 2012.
9. Advances in Nanoparticles-Assisted MALDI-MS Techniques and their Bioanalytical Applications, **Suresh Kumar Kailasa**, 12th ISMAS Triennial International Conference on Mass Spectrometry, Goa, March 3rd – 8th 2013.
10. Magnesium Oxide Nanoparticles-Assisted MALDI Mass Spectrometry for the Analysis of Oligosaccharides, **Suresh Kumar Kailasa**, Hui-Fen Wu, 4th Asia Oceania Mass Spectrometry Conference and 10th Taiwan Society for Mass Spectrometry Annual Conference, Taipei, July 8th – 12th 2013.
11. Nanomaterials Integrated MALDI-MS Approaches for Biomolecules Assays, **Suresh Kumar Kailasa**, International Conference on Frontiers of Mass Spectrometry, Mahatma Gandhi University, Kottayam, September 6th – 9th 2013.
12. Cyclen dithiocarbamate functionalized silver nanoparticles as a colorimetric sensor for simultaneous colorimetric detection of thiram and paraquat dichloride pesticides in Environmental matrices, **Jigneshkumar V. Rohit** and **Suresh Kumar Kailasa**, 1st International Symposium on Nanoparticles/Nanomaterials and Applications, Lisbon, Portugal, January 20th – 22nd 2014.
13. Carbon dots as probes for fluorescent imaging of bacteria (*Escherichia coli*) and yeast (*Saccharomyces cerevisiae*) cells, **Suresh Kumar Kailasa**, **Vaibhavkumar N. Mehta**, **S. Jha**, International Conference on Electron Microscopy and XXXV Annual Meeting of the Electron Microscope Society of India, July 7th – 11th 2014, University of Delhi, India.
14. p-Nitroaniline dithiocarbamate capped gold nanoparticles as a colorimetric sensor for selective detection of quinalphos in environmental samples, **Suresh Kumar Kailasa** and **Jigneshkumar V. Rohit**, 5th Interdisciplinary Symposium DAE-BRNS on Materials Chemistry (ISMC-2014), December 9th – 13th 2014, BARC, Mumbai, India.
15. Facile green synthesis of fluorescent carbon dots using vancomycin as a precursor for cell imaging and anti-cancer drug delivery" **Suresh Kumar**, **Stephanie L. D'souza**, **Balaji Deshmukh**, **L. Nibetida**, IV – International conference on Analytical Proteomics, September 07 – 09th 2015, Lisbon, Portugal.
16. Influencing Factors on Fluorescence Properties of Mn²⁺-doped ZnS Quantum Dots with Glutathione for Cu²⁺ and Hg²⁺ ions sensing, **K. Suresh Kumar**, **Mittal L. Desai**, **H. Basu**, **P. K. Sharma**, and **R. K. Singhal**, 1st International Conference on Nanoscience and Nanotechnology, October 19th – 21st 2016, VIT University, Vellore, India.

17. Facile hydrothermal method for synthesis of fluorescent carbon dots derived from carrot juice and their application for mytomycin drug delivery, Suresh Kumar Kailasa, Stephanie D'souza, Shiva Shankaran Chettiar, Karuna A. Rawat, PITTCO-2017, March 5th – 10th 2017, Chicago, USA.
18. "Evaluation of three color fluorescent carbon dots analytical performances for sensing of Fe³⁺ ion and bioimaging applications", Suresh Kumar Kailasa, Siyoung Ha, Seung Hoon Beek, and Tae Jung Park, Biosensors 2018, Miami, USA, Jun 13-15, 2018.
19. Fluorescence “turn-off” detection of deltamethrin and glutathione using amylase protected gold nanoclusters as a probe, Suresh Kumar Kailasa, Jigna R. Bhamore, Sanjay Jha, Rakesh Kumar Singhal, and Z. V. P. Murthy, 5th International Conference on Nanoscience and Nanotechnology, SRM University, Chennai, January 28th – 30th 2019.
20. A facile synthesis of gold-silver bimetallic nanoclusters for fluorescence “turn-off” for quinalphos and “turn-on” for Cd²⁺ and Zn²⁺ ions, Suresh Kumar Kailasa, Sowjanya Akavaram, Mittal L. Desai, Tae-Jung Park, 2nd International Conference on Nanoscience and Nanotechnology, VIT, Vellore, India, 29th November – 1st December 2019.
21. Functionalized nanomaterials for fluorescence sensing and bioimaging applications, Suresh Kumar Kailasa, Photonics 2023, Indian Institute of Science, 5 – 8th July 2023.
22. Synthesis of La:MnMoO₃ perovskite oxide nanostructures for fluorescence detection of indoxacarb in food samples, Suresh Kumar Kailasa, Nirav Vajubhai Ghinaiya, Yoojin Choi, Tae Jung Park, Global Conference on Innovation Materials 2024 (GCIM 2024)- International Union of Materials Research Societies (IUMRS) - International Conference of Young Researchers on Advanced Materials, Jeju, South Korea,

National conferences

1. “Microchip-Based Capillary Gel Electrophoresis with Programmed Field Strength Gradients for the Ultra-fast Differentiation and Detection of *Mycoplasma haemofelis* and *Candidatus M. haemominutum* in Feral Cats” **Suresh Kumar Kailasa** and Seong Ho Kang (poster), The 99th National Meeting of the Korean Chemical Society, Seoul COEX, South Korea, April 19-20, 2007.
2. “Ultra-fast Simultaneous Detection of Genetically Modified-Maize by Microchip-based Capillary Gel Electrophoresis with Laser-Induced Fluorescence Using Programmed Filed Strength Gradients” **Suresh Kumar Kailasa** and Seong Ho Kang, Korean Chemical Society Conference, Deajon, South Korea, June 28 – 29th 2007.
3. “Nanoparticle-single drop microextraction as multifunctional and sensitive nanoprobe: Binary matrix approach for gold nanoparticles modified with (4-mercaptophenyliminomethyl)-2-methoxyphenol for peptide and protein analysis in MALDI-TOF MS” Lokesh Shastri, **Suresh Kumar Kailasa**, Hui-Fen Wu, Chia-Hsun Lee, The 7th Taiwan Mass Spectrometry Annual Conference, Kaohsiung Medical University, Kaohsiung City, Taiwan, June 27th - 29th 2010.
4. “Interference free detection for small molecules: probing the Mn²⁺-doped effect and cysteine capped effect on the ZnS nanoparticles for coccidiostat and peptide analysis in the SALDI-TOF MS” **Suresh Kumar Kailasa** and Hui-Fen Wu, The 7th Taiwan Mass Spectrometry Annual Conference, Kaohsiung Medical University, Kaohsiung City, Taiwan, June 27th - 29th 2010.
5. “Multifunctional ZrO₂ nanoparticles and ZrO₂-SiO₂ nanorods for improved MALDI-MS analysis of cyclodextrins, peptides, and phosphoproteins” **Suresh Kumar Kailasa**, Hui-Fen Wu and Zhen-Yu Chen, The 7th Taiwan Mass Spectrometry Annual Conference, Kaohsiung Medical University, Kaohsiung City, Taiwan, June 27th - 29th 2010.
6. Functionalized silver nanoparticles as colorimetric probe for selective sensing of tricyclazole fungicide in rice samples, Suresh Kumar Kailasa, Jignesh Kumar V. Rohit, National Conference on Advances in Chemical Sciences and Engineering, Kanchi, March 6th – 7th 2014.
7. Fluorescence detection of monocrotophos using carbon dots derived from Ziziphus fruit, K. Suresh Kumar, Mandan VishnuVardhan, Mittal L. Desai, Tae-Jung Park, 1st Agrochemicals Congress 2019: Country's Status on Various Fronts of Agrochemicals", Society of Pesticide Science India, Division of Agriculture Chemicals, ICAR-Indian Agriculture Research Institute, New Delhi, November 13-16, 2019.

8. Memberships in Scientific Societies:

Life member of Indian Society of Analytical Scientists (LM No: 1802); Member of Korean Chemical Society (2006 – 2007) Life Member in Indian Society for Mass Spectrometry (LM No: 728); Indian Council of Chemists (LF No: 1412); The Indian Science Congress (LM No: 17039); Indian Chemical Society (LM No: 7397); Chemical Research Society of India (LM No: 1376); National Environmental Science Academy (LM No: 1137); Proteomics Society (LM No: 120); Society of Biological Chemists (INDIA) (LM No: 2573); Indian Society of Chemists and Biologists (LM No: 589); Material Research Society of India (LM No: 1977); Indian Nanoscience Society (LM No: 51); Society for Biomaterials and Artificial Organs (LM No: 558); The Indian Society for Technical Education (LM No: 80876); Indian Association of Nuclear Chemists and Allied Scientists (LM No: 1459); Indian Association of Chemistry Teachers (LM No: 974); Chromatographic Society of India, Association of Environmental Analytical Chemistry of India (LM No: 160).

9.0 Counties visited during last ten years: South Korea, Taiwan, Japan, Spain, Portugal, USA

10.0 Acting as Reviewers for various Reputed International Journals

Analytical Chemistry, Analyst, Chemical Science, New Journal of Chemistry, Chemical Communications, Analytical Methods, RSC Advances, Journal of Materials Chemistry B, Analytical Chemistry, ACS Omega, ACS Applied Materials & Interfaces, ACS Sustainable Chemistry & Engineering, Environmental Science & Technology, Results in Physics, Biosensors & Bioelectronics, Sensors and Actuators B: Chemical, Analytica Chimica Acta, Talanta, Microchimical Journal, Journal of Photochemistry & Photobiology, A, Journal of Industrial and Engineering Chemistry, Journal of the Taiwan Institute of Chemical Engineers, International Journal of Hydrogen Energy, Spectrochimica Acta Part A, Optical Materials, Process Biochemistry, Journal of Molecular Liquids, Journal of Cleaner Production, Food Chemistry, Food Hydrocolloids, Journal of Pharmaceutical and Biomedical Analysis, Nano-Structures & Nano-Objects, ChemistrySelect, Microchimica Acta, Nanoscale Research Letters, Analytical and Bioanalytical Chemistry, Applied Physics A.

11. Research collaborations

International collaborations:

- Department of Chemistry, Chung-Ang University, South Korea
- Kwangwoon University, Seoul-01897, Republic of Korea

National collaborations:

- Analytical Chemistry Division, Bhabha Atomic Research Center, Trombay, India
- Navsari Agriculture University, Navsari, Gujarat, India
- National Centre for Cell Science Complex, Savitribai Phule Pune University Campus, Pune, India.
- Genexplore Diagnostic and Research Centre Pvt. Ltd., Ahmedabad, Gujarat, India