CENTRAL UNIVERSITY OF JAMMU

First Name	Dr. Kanagaraj	Middle Name		Last Name	Kuppusamy	Photograph
Title & Designation	Associate Professor					
Address	Department of Chemistry and Chemical Sciences, Central University of Jammu, Bagla, Rahya-Suchani, District Samba-181143, Jammu and Kashmir, INDIA					
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Educational Qualifications:

Degree	Institution	Year
Ph.D., (Chemistry)	Madurai Kamaraj University, India	2014
M.Phil., (Chemistry)	Madurai Kamaraj University, India	2008
M.Sc., (Chemistry)	Madurai Kamaraj University, India	2007
B.Sc., (Chemistry)	Bharathiyar University, India	2005

Career Profile:

2024 - 2025 : Research Professor, Sichuan University, China (01 yr)
2020 - 2025 : Senior Research Associate and Scientist, Shanghai University, China (05 yrs, 03 mnths.)
2020 - 2020 : Visiting Researcher, Sichuan University, China (0 yrs, 09 mnths.)
2017 - 2019 : Post-doctoral Research Fellow, Sichuan University, China (02 yrs, 05 mnths.)
2014 - 2016 : Post-doctoral Research Fellow, Sichuan University, China (02 yrs, 05 mnths.)
2010 - 2014 : CSIR - Senior Research Fellow, Madurai Kamaraj University, India (03 yrs)
2008 - 2010 : DBT - Junior Research Fellow, Madurai Kamaraj University, India (01 yr, 09 mnths.)
2007 - 2008 : M.Phil., Research Scholar, Madurai Kamaraj University, India (01 yr, 01 mnth.)

Administrative Assignments:

- ✧ Member of Board of Studies of the Department of Chemistry and Chemical Sciences, CUJ, w.e.f. 02-13-2026-till date.
- ✧ New Research lab coordinator of the Department of Chemistry and Chemical Sciences, CUJ, w.e.f. 09-03-2026-till date.
- ✧ Alumni Meet - Coordinator of the Department of Chemistry and Chemical Sciences, CUJ (Jan-June, 2026)

Areas of Interest / Specialization:

- ✧ **Biomimetic / Supramolecular Chemistry**
- ✧ **Environmental Chemistry**
- ✧ **Bio-inorganic Chemistry**
- ✧ **Bio- / Chemical Sensors**
- ✧ **Catalysis (Homogeneous / Heterogeneous)**

Subjects Taught:

- ✧ Ph.D Course Work - Green Chemistry
- ✧ Integrated B.Sc. (Hons) M. Sc. Chemistry:

Theory Papers: Inorganic Chemistry, Physical Chemistry, Pharmaceutical Chemistry, Bioorganic and Supramolecular Chemistry, Reagents, Asymmetric Synthesis, Retrosynthesis Analysis, Fundamentals of Analytical Chemistry.

Practicals: Inorganic Chemistry Lab (Preparation of complexes and characterization, chromatographic separation techniques).

Research Guidance:

Ph.D : 01 (ongoing) **B.Sc., and M.Sc., Project Students** : 0

Publications Profile:

SCIENTIFIC RESEARCH PROFILE

Total Publications	: 51		
Book chapters	: 9	**Edited Books**	: 1
h-index and i10-index	: 30 and 47		
Total citations	: 2621 (as on July 9, 2026 from Google Scholar)		
Featured Research Cover Art	: 01		
Abstracts in National and International Conferences	: 08		
Invited Talks	: 03	**Cumulative impact factor**	: ~ 6.09
Participation in Conferences / Workshops / Meetings	: 15	**Highest impact publication**	: 17.6 (Angew. Chem.)

Vidwan-ID : 418987 **Scopus Author ID** : 57205023379

Google Scholar : xB-3IRAAAAAJ (https://scholar.google.com/citations?user=xB-3IRAAAAAJ&hl=en)

ORCID : 0000-0002-9263-1277 (https://orcid.org/0000-0002-9263-1277)

Researcher ID : A-2257-2012 (https://publons.com/researcher/2763108/kanagaraj-kuppusamy/)

Publication ID : http://publicationslist.org/php/publist.php?u=kuppusamy.kanagaraj

Linkedin link : https://www.linkedin.com/in/dr-kanagaraj-kuppusamy-42089615/?originalSubdomain=in

a. Research Paper (I.F.: Impact Factor, 2024 Journal Citation Reports, and Clarivate Analytics 2024) (*Corresponding Author)

51. Carbon dots and their role in cancer immunotherapy: Targeted drug delivery and tumor microenvironment modulation-a narrative review, **K. Kanagaraj**, S. Nangan, N. Thirumalaivasan, *Next Materials*, **2026**, 11, 101711. (https://doi.org/10.1016/j.nxmate.2026.101711) (**IF: 4.7**)

50. Development and Characterization of Nano-Niosomal Vitamin C with Enhanced Stability and Transdermal Permeability Using Qzome Technology, A. Amalraj, K.S. Akhila, E.K. Abraham, A.S. Nair, S. Gopi, N. Thirumalaivasan, A.L.M.Joseph, **K. Kanagaraj**,* *Next Research*, **2026**, 7, 101455. (https://doi.org/10.1016/j.nexres.2026.101455) (**Average Citations 2.51**)

49. Advancements in Hybrid Silica Nanoparticles for Pioneering Precision in Targeted Drug Delivery and Diagnostic Applications, N. Thirumalaivasan, S. Nangan, A.L.M. Joseph, **K. Kanagaraj**,* *Next Nanotechnology,* **2025**, 8, 100298. (https://doi.org/10.1016/j.nxnano.2025.100298) (**IF: 3.7**)

48. Azobenzenewinged phenanthroline for supramolecular chirality sensing and multidimensional chiroptical manipulation via solvent, light, temperature, and redox, X. Wang, Y. Shen, L. Chen, L. Fang, **K. Kanagaraj,*** M. Rao, C. Fan, W. Wu, C. Yang, *Chinese Chemical Letters,* **2025**, *37(2)*, 111710. (https://doi.org/10.1016/j.cclet.2025.111710) (**IF: 9.5**)

47. Nitrogen-doped carbon dots from Brahmi (*Bacopa Monnieri*) application towards deduction of metal pollutants and dye degradation, K.S. Aryamol, **K. Kanagaraj**, N. Senthilkumar, S. Rajendran, A.F. Alrefaei, N. Thirumalaivasan, T. Sundaram, A. Roy, R. Verma, S. Thomas, S. Gopi, M. Lackner, *Green Processing and Synthesis,* **2025**, *14*, 20240182. (https://doi.org/10.1515/gps-2024-0182) (**IF: 3.6**)

46. Exploring the Diverse Materials Employed in Dental Prosthesis and Implant Techniques: An Overview, N. Thirumalaivasan, **K. Kanagaraj**, S. Nangan, *Nanotechnology Reviews*, **2025**, *14*, 20250140. (https://doi.org/10.1515/ntrev-2025-0140) (**IF: 5.6**)

45. Eco-friendly corrosion protection for carbon steel: A study on natural inhibitors in artificial seawater and acidic environments, D. A. Abrahama, A. Sanmugam, **K. Kanagaraj**, A. I. Almansourd, K. Karuppasamy, A. Alfantazi, H.-S. Kim, D. Vikraman, *Journal of the Taiwan Institute of Chemical Engineers*, **2025**, *172*, 106112. (https://doi.org/10.1016/j.jtice.2025.106112) (**IF: 6.9**)

44. Bioactive Hydrogels (Bio-HyGs): Emerging Trends in Drug Delivery and Wound Healing Applications, N. Thirumalaivasan, **K. Kanagaraj**, S. Nangan, R. Pothu, S.P. Rajendra, P. Karuppiah, R. Boddula, *Polymers for Advanced Technologies,* **2025**, *36(4)*, e70132 (1-22). (https://doi.org/10.1002/pat.70132) (**IF: 3.8**)

43. Assessing the Potential Therapeutic Benefits of Natural Product Extract Fractions in Arthritis: a Comprehensive analysis of *In-Silico*, *In-Vivo*, and *In-Vitro* Study, B. Anthony Samy, K. Raman, S. Velayutham, N. Senthilkumar, N. Thirumalaivasan, **K. Kanagaraj**, R. Pothu, R. Boddula, A.B. Radwan, N. Al-Qahtani, *International Immunopharmacology,* **2025**, *144*, 113595. (https://doi.org/10.1016/j.intimp.2024.113595) (**IF: 5.6**)

42. Assessment of Sustainability and Environmental Impacts of Renewable Energies: Focusing on Biogas and Biohydrogen (Biofuels) Production, N. Thirumalaivasan, S. Nangan, **K. Kanagaraj**, S. Rajendran, *Process. Saf. Environ. Prot.,* **2024**, *189*, 467-485.

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41. Nano-PCM Materials: Bridging the Gap in Energy Storage under Fluctuating Environmental Conditions, N. Thirumalaivasan, **K. Kanagaraj**, S. Nangan, *Process. Saf. Environ. Prot.,* **2024**, *189*, 1003-1021. (https://doi.org/10.1016/j.psep.2024.06.079) (**IF: 7.9**)

40. Highly sensitive and selective detection of dopamine using atomic layer deposited HfO_2 ultra-thin films, D.A. Abraham, A.-D. Li, A. Sanmugam, M.A. Wadaan, A. Baabbad, **K. Kanagaraj**, K. Karuppasamy, T. Maiyalagan, H.-S. Kim, D. Vikraman, *Electrochimica Acta*, **2024**, 144574. (https://doi.org/10.1016/j.electacta.2024.144574) (**IF: 5.8**)

39. Utilization of Fungal and Bacterial Bioremediation Techniques for the Treatment of Toxic Waste and Biowaste, N. Thirumalaivasan; L. Gnanasekaran, S.K.R. Sekar, T. Sundaram, S. Rajendran, S. Nangan, **K. Kanagaraj**, *Front. Mater., (Sec. Carbon-Based Materials),* **2024**, 11, 10.3389/fmats.2024.1416445. (https://doi.org/10.3389/fmats.2024.1416445) (**IF: 3.5**)

38. Greener Approach Supported Nitrogen‐ Infused Carbon Dots for Biocompatible Cellular Markers and Fluorescent Ink Based Spray‐ Assisted Fingerprint Analysis, R. Ramasubburayan, **K. Kanagaraj**, L. Gnanasekaran, N. Senthilkumar, N. Thirumalaivasan, *Waste and Biomass Valorization (WAVE),* **2024**, https://doi.org/10.1007/s12649-024-02442-2. (**IF: 3.1**)

37. Exploring luminescent carbon dots derived from syrup bottle waste and curcumin for potential antimicrobial and bioimaging applications, N. Thirumalaivasan, **K. Kanagaraj**, K. Logesh, S. Chandrasekaran, S. Kumar, R. Subramanian, N. Senthilkumar, A. Kumar, V.J. Angadi, A.A. Al-Kahtani, *Chemosphere,* **2024**, 141592. (https://doi.org/10.1016/j.chemosphere.2024.141592) (**IF: 8.1**)

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35. A sustainable and green approach towards the utilization of biopolymers for effective wound dressing applications: A detailed review, D. Verma, M. Okhawilai, S. Nangan, V.K. Thakur, S. Gopi, **K. Kanagaraj**, M. Sharma, H. Uyama, *Nano-Struct. Nano-Objects,* **2024**, *37*, 101086. (**IF: 5.1**)

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33. Environmentally benign, bright luminescent carbon dots from IV bag waste and chitosan for antimicrobial and bioimaging applications, R. Ramasubburayan, N. Senthilkumar, **K. Kanagaraj**, S. Basumatary, S. Kathiresan, J. Manjunathan, M. Revathi, M. Selvaraj, S. Prakash, *Environ. Res.,* **2023**, 238, 117182. (https://doi.org/10.1016/j.envres.2023.117182) (**IF: 8.2**)

32. Sustainable preparation of luminescent carbon dots from syringe waste and hyaluronic acid for cellular imaging and antimicrobial applications, S. Nangan, **K. Kanagaraj**, G. Kaarthikeyan, A. Kumar, M. Ubaidullah, B. Pandit, R. Govindasamy, T. Natesan, *Environ. Res.,* **2023**, 116990. (https://doi.org/10.1016/j.envres.2023.116990) (**IF: 8.2**)

31. Heterogenous copper(II) schiff-base complex immobilized mesoporous silica catalyst for multicomponent biginelli reaction, S. Arumugam, N. Senthilkumar, N. Thirumalaivasan, G. Dharman, S. Pandiaraj, M. Rahaman, M. Palaniappan, R. Muthusami, T. Manogaran, L. Mari, **K. Kanagaraj**, R. Govindasamy, R. Rangappan, *J. Organomet. Chem.,* **2023**, 998, 122804. (https://doi.org/10.1016/j.jorganchem.2023.122804) (**IF: 2.7**)

30. Control of reactivity and selectivity in isomerization and rearrangement reactions inside confined spaces, **K. Kanagaraj**, J. Rebek Jr., and Y. Yu, *Chem. Commun.,* **2023**, *59*, 9056-9065. (https://doi.org/10.1039/d3cc01198d) (**IF: 4.3**)

29. Selective binding and isomerization of oximes in a self-assembled capsule, **K. Kanagaraj**, R. Wang, M.-K. Zhao, P. Ballester, J. Rebek, Jr., and Y. Yu, *J. Am. Chem. Soc.,* **2023**, *145(10)*, 5816–5823. (https://doi.org/10.1021/jacs.2c12907) (**IF: 16.6**)

28. Self-assembled hexameric capsule: A highly *β*-selective *O*-glycosylation reaction enabled via proton wire mechanism, **K. Kanagaraj**, J. Rebek, Jr., and Y. Yu, *Green synthesis and catalysis (GSC),* **2023**, *4(1)*, 7-9. (https://doi.org/10.1016/j.gresc.2022.10.005) (**IF: 7.0**)

27. pH-Controlled enantioselectivity switching of irregular photodimers in photocyclodimerization of 2-anthracenecarboxylic acid-mediated with β-cyclodextrin derivatives, **K. Kanagaraj**, J. Ji, M. Rao, C. Fan, C. Xiao, D. Zhou, W. Wu, N. Selvapalam, Y. Yu, and C. Yang, *New. J. Chem.,* **2022**, *46*, 23066-23076. (https://doi.org/10.1039/d2nj03940k) (**IF: 2.6**)

26. Role of rim functions in recognition and selectivity of small molecule guests in water-soluble cavitand hosts, M.-M. Tang, **K. Kanagaraj**, J. Rebek, Jr., and Y. Yu, *Chem. Asian. J.,* **2022**, *17(15)*, e202200466. (https://doi.org/10.1002/asia.202200466) (**IF: 3.2**)

25. Metal coordination to a deep cavitand promotes binding selectivities in water, Y.-Q. Chen, H.-W. Guan, **K. Kanagaraj**, J. Rebek, Jr., and Y. Yu, *Chinese Chem. Lett.,* **2022**, *33(11)*, 4908-4911. (https://doi.org/10.1016/j.cclet.2022.03.039) (**IF: 9.5**)

24. The more the slower: self-inhibition in supramolecular chirality induction, memory, erasure, and reversion, J. Ji, X. Wei, W. Wu, C. Fan, D. Zhou, **K. Kanagaraj**, G. Cheng, K. Luo, X. Meng, and C. Yang, *J. Am. Chem. Soc.,* **2022**, *144(3)*, 1455-1463. (https://doi.org/10.1021/jacs.1c13210) (**IF: 16.6**)

23. Hydrophobic and metal-coordinated confinement effects trigger recognition and selectivity, H.-B. Zhang, **K. Kanagaraj**, J. Rebek, Jr., Y. Yu, *J. Org. Chem.,* **2021**, *86(13)*, 8873-8881. (https://doi.org/10.1021/acs.joc.1c00794) (**IF: 3.3**)

22. Pyrene-tiaraed pillar[5]arene: Strong intramolecular excimer emission applicable for photo-writing, C. Peng, W. Liang, J. Ji, C. Fan, **K. Kanagaraj**, W. Wu, G. Cheng, D. Su, Z. Zhong, and C. Yang, *Chinese Chem. Lett.,* **2021**, *32(1)*, 345-348. (https://doi.org/10.1016/j.cclet.2020.03.079) (**IF: 9.5**)

21. pH-Controlled chirality inversion in enantiodifferentiating photo-cyclodimerization of 2-antharacenecarboxylic acid mediated by γ-cyclodextrin derivatives, **K. Kanagaraj**, W. Liang, M. Rao, J. Yao, W. Wu, G. Cheng, J. Ji, X. Wei, C. Peng, and C. Yang, *Org. Lett.,* **2020**, *22(14)*, 5273-5278. (https://doi.org/10.1021/acs.orglett.0c01194) (**IF: 4.7**)

20. Redox-triggered chirality switching and guest-capture/release with a pillar[6]arene-based molecular universal joint, C. Xiao, W. Wu, W. Liang, D. Zhou, **K. Kanagaraj**, G. Cheng, D. Su, Z. Zhong, J.J. Chruma, and C. Yang, *Angew. Chem. Int. Ed.,* **2020**, *59*, 8094-8098. (https://doi.org/10.1002/anie.201916285) (**IF: 17.6**)

19. A quinoline-appended cyclodextrin derivative as a highly selective receptor and colorimetric probe for nucleotides, **K. Kanagaraj**, C. Xiao, M. Rao, C. Fan, V. Borovkov, G. Cheng, D. Zhou, Z. Zhong, D. Su, X. Yu, J. Yao, T. Hao, W. Wu, J.J. Chruma, and C. Yang, *iScience*, **2020**, *23(3)*, 100927. (https://doi.org/10.1016/j.isci.2020.100927) (**IF: 4.5**)

18. Resolution and racemization of planar chiral A1/A2-disubstituted pillar[5]arene, C. Xiao, W. Liang, W. Wu, **K. Kanagaraj**, Y. Yang, W. Ke, and C. Yang, *Symmetry*, **2019**, *9*(9), 174 (1-25). (https://doi.org/10.3390/sym11060773) (**IF: 2.2**)

17. Photocatalytic supramolecular enantiodifferentiating dimerization of 2-anthracenecarboxylic acid through triplet-triplet annihilation, M. Rao, **K. Kanagaraj**, C. Fan, J. Ji, C. Xiao, X. Wei, W. Wu, and C. Yang, *Org. Lett.,* **2018**, *20*, 1680-1683. (https://doi.org/10.1021/acs.orglett.8b00520) (**IF: 4.7**)

16. Chiral buckybowl molecules, **K. Kanagaraj**, K. Lin, W. Wu, G. Gao, Z. Zhong, D. Su, and C. Yang, *Symmetry*, **2017**, *9*(9), 174 (1-25). (https://doi.org/10.3390/sym9090174) (**IF: 2.2**)

15. Enantiodifferentiating [4+4] photocyclodimerization of 2-anthracenecarboxylate mediated by a self-assembled Iron tetrahedral coordination cage, M. Alagesan, **K. Kanagaraj**, S. Wan, D. Su, Z. Zhong, D. Zhou, W. Wu, G. Gao, H. Zhang, and C. Yang, *J. Photochem., Photobiol.,* **2016**, *331*, 95-101. (https://doi.org/10.1016/j.jphotochem.2015.10.023) (**IF: 4.4**)

14. Microwave promoted one-pot synthesis of 2-aryl substituted 1,3,4-oxadiazoles and 1,2,4-oxadiazole derivatives using Al^{3+}-K10 clay as a heterogeneous catalyst, D. Suresh, **K. Kanagaraj,** K. Pitchumani, *Tetrahedron Lett.,* **2014**, *55*, 3678-3682. *(Highlighted by ChemInform, 2014, 45(49), DOI: 10.1002/chin.201449136)* (https://doi.org/10.1016/j.tetlet.2014.05.004) (**IF: 1.4**)

13. Selective "*turn-off*" fluorescent sensing of mercury ion using aminocyclodextrin: 3-hydroxy-*N*-phenyl-2-naphthamide complex in aqueous solution, **K. Kanagaraj**, K. Bavanidevi, T.J. Chow, and K. Pitchumani, *RSC Adv.,* **2014**, *4*, 11714-11722. (https://doi.org/10.1039/c3ra45837g) (**IF: 6.1**)

12. Michael addition of indoles to *β*-nitrostyrenes catalyzed by HY zeolite under solvent-free conditions, M. Jeganathan, **K. Kanagaraj**, A. Dhakshinamoorthy, and K. Pitchumani, *Tetrahedron Lett.,* **2014**, *55*, 2061-2064. *(Highlighted by ChemInform, 2014, 45(36), DOI: 10.1002/chin.201436124)* (https://doi.org/10.1016/j.tetlet.2014.01.112) (**IF: 1.4**)

11. Highly selective "*turn-on*" fluorescent and colorimetric sensing of fluoride ion using 2-(2-hydroxyphenyl)-2,3-dihydroquinolin-4(1*H*)-one based on excited-state proton transfer, **K. Kanagaraj**, and K. Pitchumani, *Chem. Asian. J.,* **2014**, *9,* 146-152. (https://doi.org/10.1002/asia.201300816) (**IF: 3.2**)

10. The aminocyclodextrin:$Pd(OAc)_2$ complex as an efficient catalyst for Mizoroki-Heck cross coupling reaction, **K. Kanagaraj**, and K. Pitchumani, *Chem. - Eur. J.,* **2013**, *19*, 14425-14431. *(Highlighted by ChemInform, 2014, 45(15), DOI: 10.1002/chin.201415065)* (https://doi.org/10.1002/chem.201301863) (**IF: 3.6**)

9. Per-6-amino-*β*-cyclodextrin as a chiral base catalyst promoting one-pot asymmetric synthesis of 2-aryl-2,3-dihydro-4-quinolones, **K. Kanagaraj**, and K. Pitchumani, *J. Org. Chem.*, **2013**, *78,* 744-751. *(Highlighted by ChemInform, 2013, 44(22), DOI: 10.1002/chin.201322162)* (https://doi.org/10.1021/jo302173a) (**IF: 3.3**)

8. Synthesis of 2-substituted 3-ethyl-3*H*-imidazo[4,5-*b*]pyridines catalyzed by Al^{3+}-exchanged K10 clay as green solid acids, D. Suresh, A. Dhakshinamoorthy, **K. Kanagaraj**, and K. Pitchumani, *Tetrahedron Lett.,* **2013**, *54*, 6479-6484. *(Highlighted by ChemInform, 2014, 45(13), DOI:10.1002/chin.201413169)* (https://doi.org/10.1002/chin.201413169) (**IF: 1.4**)

7. Highly selective fluorescent sensing of fenitrothion using per-6-amino-*β*-cyclodextrin:Eu(III) complex, **K. Kanagaraj**, A. Affrose, S. Sivakolunthu, and K. Pitchumani, *Biosensors and Bioelect.,* **2012,** *35*, 452-455. (https://doi.org/10.1016/j.bios.2012.02.046) (**IF: 11.8**)

6. Pyridinium ylide-assisted KY zeolite catalyzed tandem synthesis of polysubstituted cyclopropanes, V. Rama, **K. Kanagaraj**, T. Subramanian, P. Suresh, and K. Pitchumani, *Catal. Commun.,* **2012,** *26*, 39-43. (https://doi.org/10.1016/j.catcom.2012.04.020) (**IF: 3.5**)

5. A multicomponent, solvent-free, one-pot synthesis of benzoxanthenones catalyzed by HY zeolite: their anti-microbial and cell imaging studies, V. Rama, **K. Kanagaraj**, and K. Pitchumani, *Tetrahedron Lett.,* **2012,** *53*, 1018-1024. *(Highlighted by ChemInform, 2012, 43(25), DOI: 10.1002/chin.201225154)*

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4. Syntheses of 5-substituted 1*H*-tetrazoles catalyzed by reusable CoY zeolite, V. Rama, **K. Kanagaraj**, and K. Pitchumani, *J. Org. Chem.*, **2011**, *76(21)*, 9090-9095. *(Highlighted by ChemInform, 2012, 43(8), DOI: 10.1002/chin.201208163)* (https://doi.org/10.1021/jo201261w) (**IF: 3.3**)

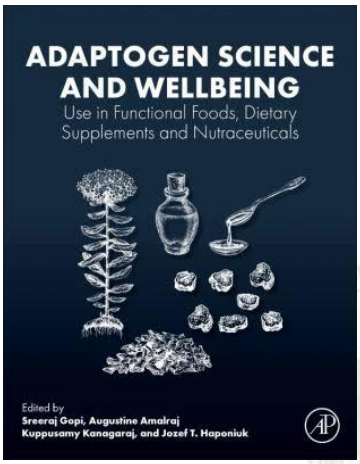
3. Zn^{2+}-K10-clay (clayzic) as an efficient water-tolerant, solid acid catalyst for the synthesis of benzimidazoles and quinoxalines at room temperature, A. Dhakshinamoorthy, **K. Kanagaraj**, and K. Pitchumani, *Tetrahedron Lett.*, **2011**, *52,* 69-73. *(Highlighted by Catalysts & Catalyzed Reactions, 22402 & **Elsevier Top 10 Cited Articles for 2011-2012**)* (https://doi.org/10.1016/j.tetlet.2010.10.146) (**IF: 1.4**)

2. Per-6-amino-*β*-cyclodextrin as a reusable promoter and chiral host for enantioselective Henry reaction, **K. Kanagaraj**, P. Suresh, and K. Pitchumani, *Org. Lett.*, **2010**, *12(18)*, 4070-4073. *(Highlighted by ChemInform, 2011, 42(2), DOI: 10.1002/chin.201102075)* (https://doi.org/10.1021/ol101658n) (**IF: 4.7**)

1. Solvent-free multicomponent synthesis of pyranopyrazoles: Per-6-amino-*β*-cyclodextrin as a remarkable catalyst and host, **K. Kanagaraj**, and K. Pitchumani, *Tetrahedron Lett.*, **2010**, *51*, 3312-3316. *(Highlighted by ChemInform, 2010, 41(37), DOI: 10.1002/chin.201037119 & **Most Cited Articles Published since 2010**))* (https://doi.org/10.1016/j.tetlet.2010.04.087) (**IF: 1.4**)

b. Books - Featured Research Cover Art in Journals

1. "ADAPTOGEN SCIENCE AND WELLBEING: USE IN FUNCTIONAL FOODS, DIETARY SUPPLEMENTS AND NUTRACEUTICALS", S. Gopi, A. Amalraj, K. Kanagaraj, and J.T. Haponiuk (Eds.), Elsevier Inc., Cambridge, MA 02139, USA, 2027.





c. Chapter in books

9. R. Kannan, V. Tharmaraj, K. Kalimuthu, G. Sreeraj, **K. Kanagaraj,*** "Prospective Developments and Emerging Directions in Green Nanostructured Photocatalysis" invited book chapter was appeared in "*Green Nanostructured Photocatalysts for Clean Energy*", Hussain, C.M., Hussain, G. (Eds.), **2025**, Ch 12, pp. 275-308, **Springer Nature Singapore**. (ISBN 9780323951265) https://doi.org/10.1007/978-981-95-1618-6_12

8. **K. Kanagaraj**, K. Kalimuthu, S. Nangan, "Carbon-based nanomaterials from plant extracts and other bioresources in hydrogen storage applications" invited book chapter was appeared in "*Nanostructured Carbon Materials from Plant Extracts*", Sreeraj Gopi, Aryamol K. S., Sabu Thomas, Jozef T. Haponiuk, Hanna J. Maria (Eds.), **2025**, Ch 19, pp. 475-506, **Elsevier Publishers**. (ISBN 9780323951265) https://doi.org/10.1016/B978-0-323-95126-5.00009-3 or https://www.sciencedirect.com/science/article/pii/B9780323951265000093

7. S. Nangan, G. Sreeraj, **K. Kanagaraj,*** "Green synthesized carbon nanomaterials in microelectronics" invited book chapter was appeared in "*Nanostructured Carbon Materials from Plant Extracts*", Sreeraj Gopi, Aryamol K. S., Sabu Thomas, Jozef T. Haponiuk, Hanna J. Maria (Eds.), **2025**, Ch 17, pp. 415-438, **Elsevier Publishers**. (ISBN 9780323951265) https://doi.org/10.1016/B978-0-323-95126-5.00003-2 or https://www.sciencedirect.com/science/article/pii/B9780323951265000032

6. S. Nangan, A. M. Joseph, **K. Kanagaraj,*** "Recent Advances in Photo-Fermentative Biohydrogen Production - Substrate Pretreatment, Strain Improvement, Bioreactor Optimization" invited book chapter was appeared in "*Biohydrogen Production - An Overview of Diverse Feedstock and Modern Technologies*", V. Chaturvedi, P. Verma, M. P. Shah (Eds.), **2025**, (1st Edition) Ch 7, pages 32, **Taylor & Francis Group - CRC Press Publishers, London**. (eBook ISBN 9781003568612) https://doi.org/10.1201/9781003568612

5. A. M. Joseph, S. Nangan, **K. Kanagaraj,*** "Recent Membrane-Based Technologies for Biohydrogen Production - Types of Bioreactors, Materials, Techno-Economic Analyses, and Its Future Prospects" invited book chapter was appeared in "*Biohydrogen Production - An Overview of Diverse Feedstock and Modern Technologies*", V. Chaturvedi, P. Verma, M. P. Shah (Eds.), **2025**, (1st Edition) Ch 4, pp. 69-96 (pages 28), **Taylor & Francis Group - CRC Press Publishers, London**. (eBook ISBN 9781003568612) https://doi.org/10.1201/9781003568612

4. V. Tharmaraj, S. Devi, and **K. Kanagaraj,*** "Optical Readout Techniques in Nanobiosensors: Fundamentals and Future Directions for Point-of-Care Applications" invited book chapter was appeared in "*Point-of-care Technology for Portable Testing Devices*", V. Tharmaraj, S. Devi, P.-Y. Liu, (Eds.), **2025**, Ch 5, pp. 119-160, **Elsevier Inc. Publishers**. https://doi.org/10.1016/B978-0-443-33030-8.00015-9

3. **K. Kanagaraj**, C. Yang, and V. Borovkov, "*Chirogenesis in supramolecular systems*", invited book chapter was appeared in "*Fundamentals of Supramolecular Chirality*", R. e Alessandro, and A. D'Urso (Eds.), Ch 3, **Imperial College Press-2020** (ISBN: 9781800610248).

2. **K. Kanagaraj**, M. Alagesan, C. Yang, and Y. Inoue, "*Solvation effects in supramolecular chemistry*", invited book chapter was appeared in "*Comprehensive Supramolecular Chemistry II*", J.L. Atwood (Ed.), **2017**, Vol. 1, Ch 02, pp. 11-60, **Oxford: Elsevier** (ISBN: 9780128031988).

1. A. Dhakshinamoorthy, **K. Kanagaraj**, and K. Pitchumani, "*Green syntheses of ethers and esters using dimethyl carbonate*", invited book chapter was appeared in "*Green Syntheses*", a series publication by **CRC Press**, USA, P. Tundo and J. Andraos (Eds.) **-** June **2014**, Vol.1, Ch 9, pp. 123-132 (eISBN:13: 978-1-4665-1319-8).

d. Conference Proceedings / Abstracts in Conferences / Participation in Conferences

ABSTRACTS IN NATIONAL AND INTERNATIONAL CONFERENCES

1. Oral presentation in 9th Asian Cyclodextrin conference (9ACC), **K. Kanagaraj**, W. Wu, and C. Yang, "*Quinoline appended cyclodextrin derivative as a highly selective sensing and differentiating receptor for nucleotides*" held at National University of Singapore (NUS), Singapore during December 14-17, 2017.
2. Paper presented in International Conference on Emerging Trends in Chemical Sciences (IETC-2013), **K. Kanagaraj**, K. Bavanidevi, T.J. Chow and K. Pitchumani, "*A highly selective "turn-off" fluorescent sensing of mercury ion using aminocyclodextrin - 3-hydroxy-N-phenyl-2-naphthamide complex in aqueous solution*", held at VIT University, Vellore, India (December 05-07, 2013) page 252 (PAEC-038).
3. Paper presented in International Conference on Materials for the New Millennium (MATCON-2010), **K. Kanagaraj**, and K. Pitchumani, "*Solvent Free Multicomponent Synthesis of Dihydropyrimidinones: Per-6-amino-β-cyclodextrin as a Remarkable Catalyst and Host*", held at Cochin University of Science and Technology, Kerala, India (January 11-13, 2010) page 49.
4. Paper presented International Conference on New Developments in Drug Discovery from Natural Products and Traditional Medicines (DDNP-TM-NIPER-2008), on "*Inclusion Behavior of a Naturally Occurring Polyphenolic, Caffeic Acid and a Purine Base, Caffeine and their Salt, Inside Cyclodextrin Nanocavity*" **K. Kanagaraj**, P. Suresh, and K. Pitchumani, held at Department of Natural Products, National Institute of Pharmaceutical Education and Research (NIPER), Punjab, India (November 16-20, 2008) page 47.
5. Paper presented in 14th National Symposium in Chemistry (NSC-14) and 6th CRSI-RSC Symposium in Chemistry, **K. Kanagaraj** and K. Pitchumani, "*Per-6-amino-β-cyclodextrin as a Remarkable Base Catalyst and a Chiral Host for the Synthesis of 2-aryl-2,3-dihydroquinolin-4(1H)-ones*", held at National Institute for Interdisciplinary Science and Technology (CSIR-NIIST), Thiruvananthapuram during February 2-5, 2012).
6. Paper presented in National Seminar on "Frontiers in Organic Synthesis and Medicinal Chemistry (FOSMC - 2011)" **K. Kanagaraj** and K. Pitchumani, "*Solvent-free Multicomponent Synthesis of Pyranopyrazoles: Per-6-amino-β-cyclodextrin as a Remarkable Catalyst and Host*" Periyar University, Salem-636011, (February 17 & 18, 2011).
7. Paper presented in National Conference on Current Trends In Chemistry (NCCTC -10), **K. Kanagaraj**, K. Nagaraj, and K. Pitchumani, "*Modification of Photophysical Properties of Quercetin Inside Cyclodextrin Nanocavity*", held at Bharathiar University, Coimbatore (December 2-3, 2010).
8. Paper presented on "*Modification of Photophysical Properties of Caffeic acid and Caffeine Inside Cyclodextrins Nanocavities*" **K. Kanagaraj**, P. Suresh, and K. Pitchumani, National Symposium on Emerging Trends in chemistry (ETC-2), held at C.P.A. College, Bodinayakkanur (July 24-25, 2008) page 47.

Conference / Workshops / Training Organized:

- ✧ **Organizing committee member** in International Conference on Recent Advances in Chemical Sciences (RACS-2026); Feb. 12 - 13, 2026 organized by Department of Chemistry and Chemical Sciences, Central University of Jammu, Jammu.
- ✧ **Convener for the workshop** on "Protecting IPR and IP Management for Start-ups," organized by the Department of Chemistry and Chemical Sciences, Central University of Jammu, Jammu, in collaboration with the Institution's Innovation Council (IIC, an initiative of the Ministry of Education), held on 16th April 2026.

- ✧ **Convener for Intra-Institutional B-Plan Competition** & Reward Best Innovations on "Integration of Artificial Intelligence in Contemporary Scientific Research", in Department of Chemistry and Chemical Sciences, Central University of Jammu, Jammu organized with collaboration with Institution's Innovation Council (IIC, an initiative of the Ministry of Education) on 24th April, 2026.
- ✧ **Convener for Mentoring Event**: Demo Day of Business Plans & Mentor Linkages on "The real Journey After Post-graduation: Lessons from the Ground", in Department of Chemistry and Chemical Sciences, Central University of Jammu, Jammu organized with collaboration with Institution's Innovation Council (IIC, an initiative of the Ministry of Education) on 28th April, 2026.

Creation of ICT Mediated Teaching Learning Pedagogy and Content:

- ✧ **ICT-Mediated Pedagogy:** Integrated **3D software models** for molecular structure visualization and smart board for teaching Group Theory, improving student engagement and conceptual clarity in advanced chemistry topics.

Conference / Workshops / Training attended as Faculty Member:

PARTICIPATION IN CONFERENCES / WORKSHOPS / MEETINGS

1. Participated in the Protecting IPR and IP Management for Start-ups in Department of Chemistry and Chemical Sciences, Central University of Jammu and Institution's Innovation Council (IIC, an initiative of the Ministry of Education) on April 16, 2026.
2. Participated (nominated by Central University of Jammu (CUJ)) in the national conference on Nuclear Energy and Critical Minerals: Exploration, Myths and Social Impact (NE&CM-2026) in Central University of Punjab (CUP), Bathinda in collaboration with the Indian Nuclear Society (INS) and the Atomic Minerals Directorate for Exploration and Research (AMD) during February 24-25, 2026.
3. Took part in the 8th National Meeting on Macrocyclic Arene Supramolecular Chemistry on August 25–26, 2018, in Yangling, Northwest Agriculture and Forestry University in Xian, China.
4. Participated in National Seminar on "Catalysts and Catalyzed Reactions" held at Madurai Kamaraj University (March 28, 2014).
5. Participated in 15th National Symposium in Chemistry (NSC-15) and 7th CRSI-RSC Symposium in Chemistry held at Banaras Hindu University (BHU), Varanasi during January 31 and February 1-3, 2013.
6. Attended the lecture workshop on "Advances in Chemistry" held at School of Chemistry, Madurai Kamaraj University (26-27th July, 2013).
7. Participated in National Seminar on "Current Trends in Organic Synthesis" held at Department of Organic Chemistry, School of Chemistry, Madurai Kamaraj University (19th June, 2013).
8. Participated in National Seminar on "Recent Advances in Crystal Growth and Crystallography (RACC-2012)" held at School of Physics, Madurai Kamaraj University, India during March 21-22, 2012.
9. Participated in "International Year of Chemistry Celebrations-2011" held at School of Chemistry, Madurai Kamaraj University (December 19, 2011).
10. Participated in National Seminar on "Nanostructured Materials and Applications (NSNMA-2011)" held at School of Chemistry, Madurai Kamaraj University (March 04-05, 2011).
11. Participated in National Seminar on "Recent Advances in Inorganic and Nano Chemistry (RANIC-2010)" held at Madurai Kamaraj University (March 29-30, 2010).
12. Participated in DST sponsored SERC school on "Green Chemistry" Applications, Research Activities and Recent Trends held at Madurai Kamaraj University (December 14-27, 2009).
13. Participated in "Patent Awareness Program" held at Madurai Kamaraj University (December 04, 2009).
14. Participated in Fourth J-NOST Conference for research Scholars held at Madurai Kamaraj University (December 6-9, 2008).
15. Participated in National Seminar on "Frontiers in Natural Products Chemistry-2008 (FNPC-'08)" held at Madurai Kamaraj University (March 20-21, 2008).

Invited Lectures / Resource Persons:

1. Delivered a Special Lecture on international webinar series for Science Academics: *"Basic Concepts of Supramolecular Chemistry"* Organized by Department of Chemistry, Selvam Arts and Science College, Namakkal / Periyar University, Tamil Nadu, India, 16th December 2020.
2. Delivered a Special Lecture on an online Refresher Course for Science Academics: *"Supramolecular Chemistry: Medium is the Message"* Organized by Department of Chemistry and Physics, APA College, palani / Madurai Kamaraj University, Madurai, India, 24th June 2020.
3. Delivered a Invited Talk in 2024 the 9th International Symposium on Food and Health (Shanghai) "Importance of Supramolecular Chemistry in Food Chemistry" Organized by Shanghai Ocean University and Shanghai Society of Food Science, Shanghai, China on June 2024.

Research Projects (Major Grants / Research Collaboration):

PROJECTS AND FUNDS

COMPLETED

Project No. 1	
Institute:	Sichuan University, China
Title:	*Design, synthesis CDs based supramolecular architectures: their applications in various fields*
Funding Agency:	China Postdoctoral Science Foundation, China
Category:	First Grade-Postdoctoral researchers independent research fund (start-up grand)
Grand amount:	120,000 RMB (~15 lakhs)
Grand No.:	2015M570781 (under general program)
Duration:	2015-01-01 to 2015-12-31
Role:	Principal Investigator (PI)

Project No. 2	
Institute:	Shanghai University, China
Title:	*Study on free radical [2+2] cycloaddition based on supramolecular capsule control*
Funding Agency:	Shanghai Science and Technology Commission (Shanghai Foreign Experts Bureau)
Grand amount:	150,000 RMB (~20 lakhs)
Grand No.:	22WZ2504600
Duration:	2022-01-01 to 2022-12-31
Role:	Principal Investigator (PI)

Awards and Distinctions:

AWARDS / FELLOWSHIPS / FUNDS

- Awarded **research fund** (150,000 RMB) under general program (No. 22WZ2504600) by Shanghai Science and Technology Commission (Shanghai Foreign Experts Bureau) (2022.01.01-2022.12.31)
- Invited as Visiting Researcher by Sichuan University, Chengdu, China (January-September 2020, 9 months)
- Awarded **Chinese Government Postdoctoral Researcher** by China Postdoctoral Science Foundation, Government of China and Sichuan University, Chengdu, China (April 2017-July 2019, 2 years, and 3 months)
- Awarded **First grade - Postdoctoral researchers independent research fund (start-up grand)** (120,000 RMB) under general program (No. 2015M570781) by China Postdoctoral Science Foundation (2015-2016)
- Awarded **Chinese Government Postdoctoral Researcher** by China Postdoctoral Science Foundation, Government of China and Sichuan University, Chengdu, China (June 2014-November 2016, 2 years, and 5 months)
- Received **Best oral presentation** in International Conference on Emerging Trends in Chemical Sciences (IETC-2013) held in VIT University, Vellore (Dec. 5-7, 2013), India
- Awarded **Senior Research Fellowship** by Council of Scientific and Industrial Research, India (2011-2014, 3 years)
- Awarded **Junior Research Fellowship** by Department of Biotechnology, Ministry of Science and Technology, India (2008-2010, 2 years)
- Secured **First Rank** in M.Phil., for the period 2007-2008 at Madurai Kamaraj University, India
- Secured **Third Rank** in M.Sc., for the period 2005-2007 among the various colleges affiliated to Madurai Kamaraj University, India
- Secured **First Rank** in M.Sc., for the period 2005-2007 at Madurai Kamaraj University, India (College level)
- Secured **First Rank** for the period 2002-2005 at Bharathiyar University, India (College level)
- Received **Best Student Award** in B.Sc., for the period 2002-2005 at Bharathiyar University, India (College level)

Association with Professional Bodies:

PROFESSIONAL RECOGNITION

Member in Professional Bodies

Life-Fellow - The Indian Chemical Society (ICS), Kolkata, India (F/8452 (LM))

- The Indian Science Congress Association, Kolkata - 700 017, INDIA
- The International Society for Molecular Recognition (ISMR), was founded in 1985
- The Chemical Research Society of India (CRSI), IISC Bengaluru, India (LM 2933)
- The Indian Society for Radiation and Photochemical Sciences (ISRAPS), Mumbai, India (L-556)
- The Indian Society of Analytical Scientists (ISAS), Mumbai, India

Editorial Board Member : Current Organic Synthesis, International Journal of Modern Science and Technology (IJMST) in Chemical Sciences division, and International Journal of Advanced Engineering, Science and Technology

Topic Editor : Special Issue Editor

Journal : Journal of Composites Science

Title : "*Advanced Composite Materials from Natural and Synthetic Sources: Fabrication, Characterization and Practical Application*" - Volume II"

Link : https://www.mdpi.com/journal/jcs/special_issues/F41NM507SY

Reviewer in International Journals:

Other Activities:

SUMMER TRAINING - INPLANT TRAINING

Title : *Fluorescence spectroscopy and calorimetry (DSC)*

Institute : Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam, India

Duration: 26 May - 07 July, 2006

Title : *Chemistry involved in sugar production and distillery unit: process details and analysis*

Institute : The Amaravathi Co-operative Sugar Mills Ltd. (ACSM) and Distillery Unit, Udumalpet, India

Duration : November - December, 2004