



Dr Suma S

Associate Professor of Chemistry

ADDRESS & EMAIL

Department of Chemistry,
SN college for women
Kollam

drsumas@sncwkollam.org

QUALIFICATION

MSc, B Ed, Ph D

DATE OF JOINING

07/12/2004

EXPERIENCE IN YEARS

16 years

AREA OF SPECIALIZATION

Organic Chemistry

ADMINISTRATIVE DISTINCTION

- Additional Chief Superintend of University examination in the period 2018-2019
- College NAAC Reaccreditation Committee Member in the academic year 2016-2017
- Department IQAC Member in the academic year 2016-2017
- College Council member (Elected) in the year 2014-15

PAPER PRESENTATIONS

- A poster is presented in the seminar on “Smart materials and analytical techniques” organized by Department of Chemistry, SNCW Kollam entitled “Synthesis of aldoximes and ketoximes using activated alumina” on 03/09/2019
- Paper Presented in the National Seminar on “Green Approaches towards Chemical Synthesis” organized by Department of Chemistry, SG College Kottarakkara on 07/11/ 2019-08/11/2019 Entitled “ Synthesis of 1,3 diphenyl-1,3- propanedione-2-dithio carboxylic acid from Acetophenone”
- Two Posters are presented in the International Seminar on “photochemistry and Sustainable energy” organized by Department of Chemistry, St Micheals College Cherthala during 16/10/2019-19/10/2019 Title: 1): A convenient synthesis and characterisation of 1,3 diphenyl-1,3- propanedione-2-dithio carboxylic acid by UV-Visible, IR, NMR and Mass Spectroscopy Title: 2): Microwave Assisted Green synthesis and characterisation of phenylhydrazone by UV, NMR ,IR and Mass Spectroscopy
- Poster presentation in National seminar on Green Chemistry-Environmental and Economic Benefits Sponsored by ACT at PG Department of Chemistry FMN College Kollam. on 24/06/2014.

- Poster presentation in National seminar on Emerging Trends in material science
Sponsored by UGC at PG Department of Chemistry, S.N.College for women, Kollam
29/09/2014 and 01/10/2014

PARTICIPATION IN SEMINARS/ CONFERENCES/ WORKSHOPS

- Participated in the G Chem Paint training organized at D.K.M. College for Women in January 2020 semester, with course material provided by the Spoken Tutorial Project, IIT Bombay funded by the National Mission on Education through ICT, MHRD, Govt. of India from 04.05.2020 to 10.05.2020. The Faculty Development Programme included hands-on exposure in GChemPaint and LibreOffice Suite Writer.
- Has participated in Faculty Development Programme from 2020-05-25 to 2020-05-29 on Moodle Learning Management System organized by Sree Narayana College, Chengannur with course material provided by Spoken Tutorial Project, IIT Bombay. This training is offered by the Spoken Tutorial Project, IIT Bombay, funded by the National Mission on Education through ICT, MHRD, Govt. of India.
- . participated in the International Webinar on “Alternative therapy for oral diseases: Exploring newer Possibilities”. Organized by Department of Botany, Sree Narayana College for Women, Kollam on 24th July 2020 in association with IQAC
- participated in the International Webinar on ‘Nanotechnology Against COVID-19’, Organised by Post Graduate and Research Department of Chemistry, Sree Narayana College for Women, Kollam, Kerala, India on 23 July 2020.
- participated in the International Webinar on “Autoimmunity and Antimicrobial Response Factors” organised by the Department of Biochemistry and Industrial Microbiology in association with IQAC, Sree Narayana College for Women, Kollam on 27th July 2020.
- participated in the International Webinar on 22nd July 2020 organized by the Post Graduate and Research Department of Physics, Sree Narayana College for Women, Kollam, Kerala.
- participated in the DBChemReach - II Webinar Series on “Design, Synthesis and development of theranostics (therapeutic plus diagnostic) based product with curcumin - oligonucleotide - Rare Earth Metal based Nanoparticle probes as MRI contrast agent” organized by the PG & Research Department of Chemistry, Devaswom Board College, Thalayolaparambu, Kottayam, Kerala on 30th May 2020.
- Participated in the inaugural session of webinar Scientific Symphoria 2020 organized by the Dept of Chemistry Mar Ivanios College Thiruvananthapuram held on 30th May 2020
- Participated in the second session of webinar Scientific Symphoria 2020 a talk by Dr Deepalekshmi Ponnammam on the topic Polymer nanocomposites and their applications organized by dept of chemistry Mar Ivanios College Thiruvananthapuram held on 22nd July 2020
- participated in the International two day Webinar on 11th June 2020 and 12th June 2020 organized by the Department of Hindi, Sree Narayana College for Women, Kollam, Kerala.
- participated in the International Webinar on “CO₂ Capture from Air to Control Pollution & Gas Purification” organized by Department of Chemistry in association with IQAC

Presented by Dr. Arijit Mallick, Japan Society for the Promotion of Science (JSPS) Fellow, Kyushu University, Japan 24th July 2020 - 10.30 AM to 11.30 AM

- Has attending the Webinar “Preparing for Online Teaching” Presented by Dr. Muralee Thummarukudy Operations Manager, Crisis Management Branch, United Nations Environment Programme on May 21, 2020 - Duration 90 Minutes
- Has attended Two days Online course on “Elemental Arts:Evolution of Modern Periodic Table” organized by dept of Science and Humanities (Chemistry)Sreekrishna College of Engineering and Technology Coimbatore on 1st and 2nd May 2020.
- Has participated in the webinar on “SAAC:PERSPECTIVES ON ASSESSMENT AND ACCREDITATION PROCESS” organised by Internal Quality Assurance Cell S N College Kollam in association with Kerala State Higher Education Council on 07th August 2020.
- has participated in the International Webinar Lecture Series organised by the Department of Chemistry, St. Michael’s College,Cherthala, Alappuzha, Kerala from 21-23 May 2020.
- . has attended the the webinar on Nutrigenetics,Synthetic Chemicals and Obesity organised by the Department of Chemistry, Sree Narayana College, Punalur on September 14, 2020
- has participated in the “International Webinar on Recent Advances in Chemical Science” jointly organized by Postgraduate & Research Department of Chemistry S N College Kollam and Internal Quality and Assurance Cell (IQAC), Sree Narayana College, Kollam from 28th - 31st May 2020.
- has participated in the “National Webinar on Basic Principles & Recent Trends in Inorganic Technology” organized by Postgraduate & Research Department of Chemistry in association with Internal Quality Assurance Cell, Sree Narayana College, Kollam on 4th June 2020.
- participated in the international webinar on “Size Does Matter : Genes, Diet & Obesity” organized by P.G. Department of Biotechnology, SAS SNDP Yogam College, Konni, Pathanamthitta, Kerala (Affiliated to Mahatma Gandhi University, Kottayam, Kerala) in collaboration with Xcellogen Biotech Pvt Ltd.
- .has participated in the International Webinar on “ The Impact of light in Chemistry and its applications” organised by the Department of Chemistry, St. Paul’s College, Kalamassery on 30th May 2020.
- has participated in the National Level Webinar on Material Science – Thermal Analysis of Materials organised by the Department of Chemistry, St. Paul’s College, Kalamassery on 17th May 2020.
- has participated in the National Level Webinar on Material Science – Nanomaterials organised by the Department of Chemistry, St. Paul’s College, Kalamassery on 17th May 2020.
- has participated in the Webinar on Language Universals and Communication Typology: An Introduction to Essential English Language Tools in the Digital Age (Anglo-Scopes Series : Session I) organised by the Career Guidance & Placement Cell, St.Xavier’s College for Women, Aluva, Kerala, India on 21st May, 2020.
- .has participated in the International Webinar on Visualisation Tools in Chemistry organised by the Department of Chemistry, St. Paul’s College, Kalamassery on 19th May 2020.
- has participated in the International Webinar on Visualisation Tools in Chemistry organised by the Department of Chemistry, “Honing the intricate aspects of Research on 12/09/2020 at 10 am.

- has participated and successfully completed the One Week (7 Days) online Short-Term Faculty Training Programme (Interdisciplinary) on “DIGITAL CONTENT MANAGEMENT ON E-LEARNING”, which was delivered as MOOC with four quadrants, organized by Sree Narayana College for Women., Kollam, in academic collaboration with Kerala State Higher Education Council from June 13th to June 19th of 2021

INVITED LECTURES AS RESOURCE PERSON

- Resource person for an Awareness programme in Health at C V K M Higher Secondary School East Kallada Kollam on the topic “Nanotechnology in Cosmetics”
- Invited Lecture at CVKM HSS, East Kallada on 25/01 2014 in the topic “Coffee: Your Friend or Foe”
- Invited Lecture at SN College, Punalur on 05/02 2014 in the topic Chemistry of Diamond
- Invited Lecture at CVKM HSS, East Kallada on 21/02 2015, topic was GreenHouse Gases
- Invited Lecture at SN College, Punalur on 03/10 /2015 topic was Solid Waste Management
- Invited Lecture at The Kerala Ceramics Ltd. on 07/11 /2015 topic was The Structure of Clay Minerals and its Applications

PUBLICATIONS IN JOURNALS OR BOOKS

- [B. Sureshkumar](#) [Y. Sheena Mary](#), [Y. Shyma Mary](#) & [S. Suma](#) Spectroscopic and DFT investigations of 8-hydroxy quinoline-5-sulfonic acid-5-chloro-8-hydroxyquinoline cocrystal. *Chem. Pap.* (2021). <https://doi.org/10.1007/s11696-021-01579-x>
- B. Suresh Kumar Y. S. Mary, C.Y. Panicker, S. Suma, S. Armarković, S. J. Armarković, C. V. Alsenoy, B. Narayana Quinoline derivatives as possible lead compounds for anti-malarial drugs: Spectroscopic, DFT and MD study *Arabian Journal of Chemistry* 2020, 13 (1), 632-648 <https://www.sciencedirect.com/science/article/pii/S1878535217301363#>
- B. Sureshkumar, Y Sheena Mary, K.S. Resmi, C. Yohannan Panicker,,Stevan Armarkovic, Sanja J. Armarkovic, C. Van Alsenoy, B. Narayana, S. Suma Spectroscopic analysis of 8-hydroxyquinoline derivatives and investigation of its reactive properties by DFT and molecular dynamics simulations *Journal of Molecular Structure*, 2018, 1156, 336-347 <https://doi.org/10.1016/j.molstruc.2017.11.120>
- B.Sureshkumar^a Y.Sheena Mary^b C. YohannanPanicker^b K.S.Resmi^b S.Sum^a StevanArmarkovic^c SanjaJ.Armakovic^d C.Van Alsenoy^e “Spectroscopic analysis of 8-hydroxyquinoline-5-sulphonic acid and investigation of its reactive properties by DFT and molecular dynamics simulations” *Journal of Molecular Structure*, 2017, 1150, 540-552

<http://www.elsevier.com/locate/molstruc>

- B.Sureshkumar^aY.Sheena Mary^bS.Suma^aStevanArmaković^cSanja J.Armaković^dC. VanAlsenoy^eB.Narayana^fBinil P.Sasidharan^g "Spectroscopic characterization of 8-hydroxy-5-nitroquinoline and 5-chloro-8-hydroxy quinoline and investigation of its reactive properties by DFT calculations and molecular dynamics simulations" *Journal of Molecular Structure*, 2018, 1164, 525-538 <https://doi.org/10.1016/j.molstruc.2018.03.088>
- B.Sureshkumar^aY.SheenaMary^bK.S.Resmi^bS.Suma^aStevanArmaković^cSanja J.Armaković^dC.Van Alsenoy^eB.Narayana^fD.Sobhana^a "Spectroscopic characterization of hydroxyquinoline derivatives with bromine and iodine atoms and theoretical investigation by DFT calculations, MD simulations and molecular docking studies" *Journal of Molecular Structure* 2018, 1167, 95-106 <https://doi.org/10.1016/j.molstruc.2018.04.077>
- Chithra Sumej, P.P.Sharmila, Nisha J Tharayil and S. Suma, "Proton transport properties of tin phosphate, chromotropic acid anchored onto tin phosphate and tin phenyl phosphonate", *Bull. Mater. Sci* , Vol-36,, No-1, Pages: 129 - 133, February 2013
- Suma.S, Manoj S V, Chithra P G, "Analysis of effluents discharged to ashtamudi lake from china clay industries. ", *International Journal of Chemistry Research*, 2012, Vol-3, No-1, Pages: 3 - 6,
- S. Suma, R. Samuel, C.V. Asokan, P. Chandran,S. Retnamma and E. R. Anabha, "A facile method for the synthesis of substituted 2-ylidene-1,3- oxathiazoles from acetophenones. " *Tetrahedron Letters*, 2007, Vol-48, Pages: 8376 - 8378,
- . S. Suma and C. V. Asokan , " Oxidative Cyclizations of β -oxo-N-aryl thioamides to substituted benzothiazoles. ", *Indian Journal of Chemistry Section B*, 1999, Vol-38 B, No-38 B, Pages: 1338 - 1341,
- S. Suma, N. K. Usha Kumari and C. V. Asokan, "Studies on the Alkylation of β -oxothioamides with α -Bromoketones: Selective cyclisation of the intermediate α -oxoketene-N, S-acetals to thiophene derivatives", *Phosphorus, Sulfur Silicon Relat. Elem* 1997, 131, 161 - 171,
- S. Suma and C.V. Asokan, , "A convenient synthesis of β -chloro β -methylthio α , β -unsaturated ketones from β -oxodithioesters, ", *Synthetic Communications*, 1996, Vol-26, No-26, Pages: 847 - 850,
- D. Viswam, S. Suma and C. V. Asokan, " Novel Synthetic application of Acylketenedithioacetals and β -Oxodithioesters New Horizons in Organic Synthesis ", *New Horizons in Organic Synthesis* , Vol-1, No-1, Pages: 259 - 266,

MEMBERSHIP IN PROFESSIONAL BODIES

- ACT(Academy of Chemistry teachers)State level professional body

- Life time member of Indian Science Congress Association National level Professional body

RESEARCH OUTPUT

- A research scholar was submitted the thesis on 27/11/2017 the awarded Ph D degree in the year 2018 The title of the thesis is “DFT STUDIES ON SOME OXINE DERIVATIVES AND THEIR BINDING AFFINITY AS ENZYME INHIBITORS”

CITATIONS AND INDEXING, IF ANY

- **JOURNAL CITATIONS**

- 128 (Scopus)

- **INDEXING (h-INDEX)**

- 5 (Scopus)