

CHEM LETTERS

NEWSLETTER OF THE DEPARTMENT OF CHEMISTRY, MAR Ivanios COLLEGE(AUTONOMOUS)
THIRUVANANTHAPURAM



The Department of Chemistry was established in 1949 by offering Chemistry courses for the Pre-University programs. B.Sc degree course in Chemistry was started in 1954. Later in 1964 the Post-Graduate course was initiated and the Department was upgraded to a Research Centre in 1976. Currently the Department offers Under-Graduate courses, Post-Graduate courses and Research programs. Chemistry is offered as a Complementary course to the Under-Graduate students of Physics, Botany and Zoology by the Department. The Department is DST-FIST supported. The Department has produced several nationally and internationally renowned scientists and professors who are holding positions of high esteem. The Research Department is engaged in active research and conducts various research activities in the fields of biomaterials, electrochemistry, phytochemistry, pharmaceutical chemistry, synthetic organic chemistry and materials science. Currently, the Department has 10 Faculty Members, out of whom 6 are research guides. The Department has conducted several major and minor projects from various government agencies like the UGC, DST and CSIR. The Department provides consultancy services to IGNOU and undertakes projects from industries.

From the Editor's Desk

It is with great pleasure that we present the third edition of Chemletters, which reflect upon our remarkable journey that we have embarked upon together. It puts flashes upon the activities, events and achievements of Department of Chemistry during the academic year 2023-24. Our department is always trying to enrich our campus life by arranging varieties of academic as well as co-curricular activities to inspire, inform and connect us as a scientific community. This year we successfully conducted 'The International Colloquium on Advanced Functional materials (ICAFM 2024) and International Conference on Nanotechnology and Material science. The colourful celebrations of Onam, Teachers day, World Ozone day and Kerala Piravi also added flavour to the diverse activities of Chemistry Association. We have completed one more batch of Diploma in Pharmaceutical Chemistry. Science facilitation Programme and Visit to Snehaveedu forms a bridge between campus and the society. I would like to extend my sincere gratitude to our HoD Dr Suju C Joseph and all my colleagues who supported me in coordinating all the activities of Chemistry association. Special congratulations to my second year students who took active leadership and responsibility in making all the activities of Chemistry association a grand success. My special thanks to Piyush Krishna P R, Chemistry Association Secretary and his team for creatively designing this news letter. Thank you all for your continued dedication and support.



-Dr. Jinu M John

..... Message from HoD

As we close the chapter on another remarkable academic year 2023-2024, it is my great pleasure to share with you the achievements and milestones that have defined our journey. This academic year has been a testament to our collective dedication, resilience, and passion in the field of Chemistry. Our faculty members have continued to excel publishing influential research that pushes the boundaries of our understanding in areas such as materials science, biomedical implants, corrosion, phytochemistry and pharmaceutical chemistry. Their commitment to advancing scientific knowledge has not only garnered recognition but also inspired our students to pursue their own research endeavors with vigor and curiosity. The achievements of our students have been equally impressive. From presenting at international/National conferences to winning competitive scholarships and awards, their hard work and determination have been on full display. We continued our legacy by organizing an International Conference on Nanotechnology and Materials Science (ICNMS 2023) inaugurated by Prof. (Dr.) Mohanan Kunnumel, Hon' Vice-Chancellor, University of Kerala & KHUS. Notably, our final year Degree and Post graduate students have demonstrated exceptional academic excellence and readiness to embark on diverse career paths in industry, academia, and beyond. Also happy to mention that many students have qualified JAM, GATE and CSIR-UGC NET examinations. This year, we also saw the successful implementation of several new initiatives aimed at enhancing our educational offerings and research capabilities. Our updated curriculum now designed as part of FYUGP includes cutting-edge courses that reflect the latest advancements in the field. We have also invested in state-of-the-art laboratory facilities, ensuring that our students have access to the tools and resources they need to thrive. Interdisciplinary collaboration has been a cornerstone of our efforts this year. By partnering with other departments and institutions like IISER Thiruvananthapuram, IIT Madras, IIST and CSIR-NIIST Thiruvananthapuram, we have tackled complex challenges and created opportunities for innovation. These collaborations have not only enriched our research but have also provided our students with unique learning experiences and broader perspectives. Let me whole heartedly thank His Beatitude Moran Mor Baselios Cardinal Cleemis Catholicos, Patron & Manager of our College for the leadership, blessings and Fatherly affection shown to us. Also thank His Excellency Most Rev. Dr. Mathews Mar Polycarpus, Auxiliary Bishop of the Major Archdiocese of Trivandrum and former Principal of Mar Ivanios College for the motivation and encouragement. We profoundly thank the Principal Dr. Meera George; former Principal Rev. Fr. Vincy Varghese Valiyachangaveetil; Bursar Very Rev. Fr. Thomas Kayyalackal; Rev. Fr. Soji Mathew Murupel and Dean of Studies Rev. Dr. Gigi Thomas for their support, guidance, cooperation, and encouragement. I would like to extend my sincere gratitude to our dedicated faculty, staff, and students for their unwavering commitment and hard work. Your contributions have been invaluable in making this year a resounding success. To our alumni, your continued support and engagement are deeply appreciated, and we are proud of the impact you continue to make in your respective fields. As we look ahead, I am confident that the Chemistry Department will continue to build on this year's successes. Together, we will strive for excellence, foster innovation, and make significant contributions to the world of chemistry. Thank you for being a part of our journey. I hope you enjoy this edition of the Chemistry News Letter, which celebrates the accomplishments and highlights the exciting work of our vibrant community. Specially applaud the hard work and determination of Dr. Jinu M. John, Faculty Coordinator, Chemistry Association for taking up the great initiative to publish this newsletter. Efforts of Piyush Krishna P R, Secretary, Chemistry Association and other student representatives are also appreciated. I wish all the Students and my Faculty Colleagues a great academic year 2024-2025.

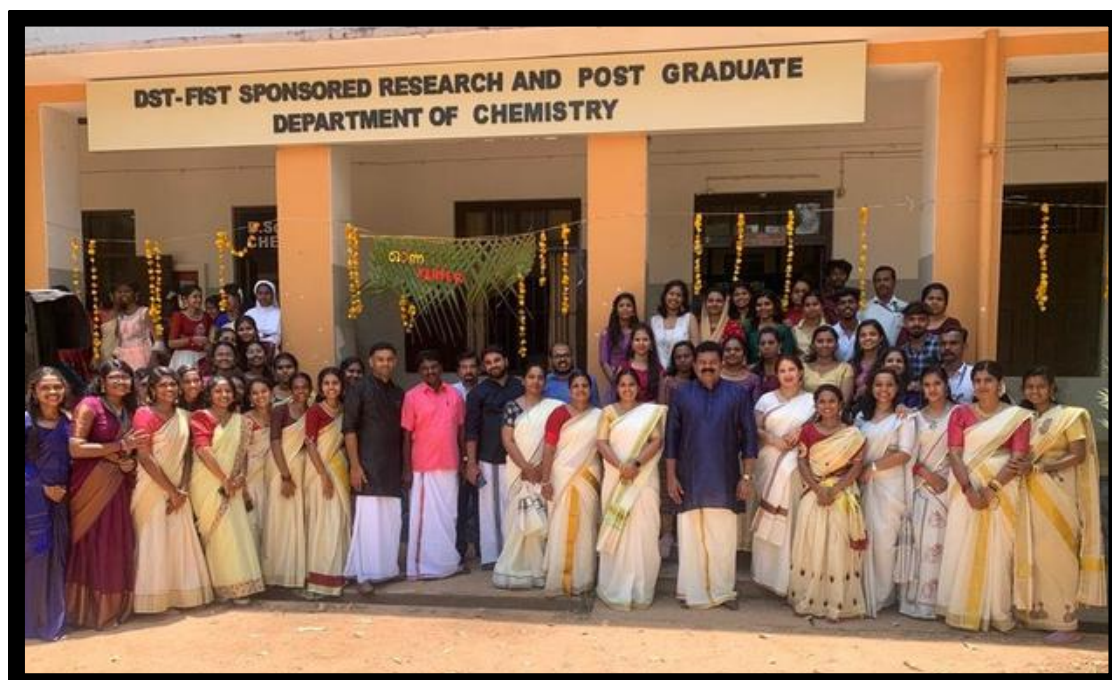


-Dr. Suju C. Joseph
Head, Department of Chemistry

ONAM CELEBRATION

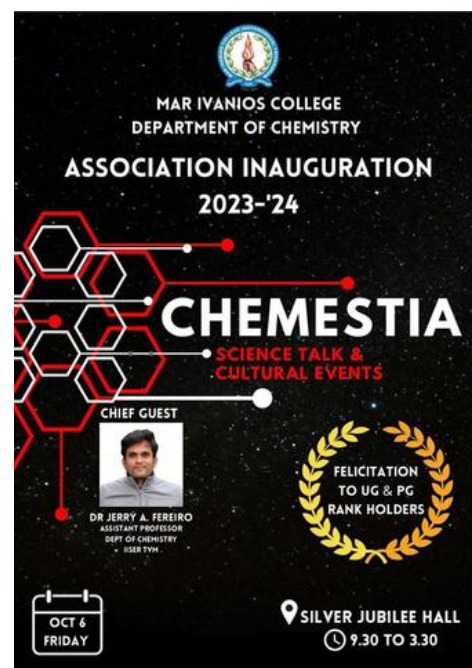


The Department of Chemistry celebrated Onam with great joy. The Chemistry Department won 3rd prize in both Maveli Ramp Walk and Nandanpaatu events conducted by the college.

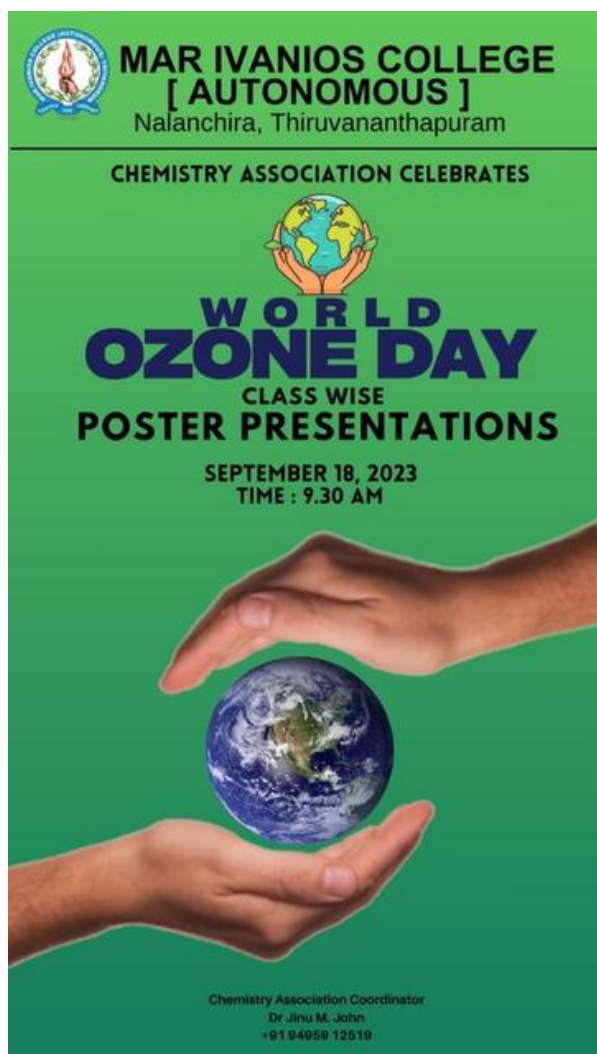


INAUGURATION OF CHEMISTRY ASSOCIATION- 'CHEMESTIA'

Chemistry Association at Mar Ivanios College is an Association of the students by the students and for the students. Inaugural function was dignified by the esteemed presence of the Principal Prof. Dr. Victoria . P. K (for the Inauguration and an enthusiastic Scientific message), Prof. Dr. Jerry A. Fereirio (Chief Guest, for the inspirational Key note address on Chemistry in Natural processes) Overall an excellent day which started with a Cultural event with a mesmerising display of talents by the students. Felicitation of the rank holders also took place.



WORLD OZONE DAY CELEBRATION



The Department of Chemistry celebrated World Ozone Day. Students talked about ozone and why it must be protected. Class wise poster presentation were also organised.



THE INTERNATIONAL COLLOQUIUM ON 'ADVANCED FUNCTIONAL MATERIALS (ICAFM 2024)



**INTERNATIONAL COLLOQUIUM ON
ADVANCED FUNCTIONAL MATERIALS
ICAFM 2024**

Organized by
**PG & Research Department of Chemistry
MAR IVANIOS COLLEGE (AUTONOMOUS)**
Thiruvananthapuram, Kerala - 695015

Venue : Silver Jubilee Hall

24
January
2024

Sponsored by

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The International Colloquium on 'Advanced Functional Materials (ICAFM 2024) organised by the PG& Research Department of Chemistry, Mar Ivanios College (Autonomous) was held at Silver Jubilee Hall, Mar Ivanios College on 24th January 2024 . The International Colloquium was inaugurated by Prof.Konrad Szacilowski, professor of Chemistry, AGH University of Science & Technology, Poland. Dr.Vijayakumar Chakkooth, Principal Scientist, CSIR -NIIST, Thiruvananthapuram and Dr.Tomasz Mazur,AGH University of Science & Technology, Poland delivered the plenary lectures. This Colloquium aims to discuss advanced functional materials and it's application in smart devices. This occasion provides students with a deeper understanding of complex topics which will help the students to get more information about advanced technology in the chemistry field.



About the Colloquium
The colloquium aims to discuss advanced functional materials and its applications in smart devices. In this colloquium, international experts in nanotechnology and material science- Prof. Konrad Szacilowski, Dr. Tomasz Mazur and Dr. Vijayakumar Chakkooth will be giving lectures. The occasion provides students with a deeper understanding of such complex topics which will be followed by discussions and clarifications on the topic specifically for the PG students and Research scholars.

Speakers

Prof. Konrad Szacilowski
Topic of Lecture
Computing in the Time of Apocalypse
Prof. Konrad Szacilowski is a Professor at the Academic Centre of Materials and Nanotechnology, AGH University of Science and Technology, Kraków, Poland. His initial interest in photochemistry and spectroscopy of coordination compounds has gradually evolved towards molecular and nanoscale logic devices and finally towards unconventional computing. At the moment his main research interests encompass the design of inorganic materials for memristive applications, mimicking of neutral and synaptic processes in inanimate systems, reservoir computing and relations of musical harmony with other fields of science. He is an author of the book "Infochemistry: Information processing at nanoscale" and numerous papers in fields of coordination chemistry, material science, spectroscopy, catalysis, and electrochemistry.

Dr. Tomasz Mazur
Topic of Lecture
Resistive switching devices with simple architecture, based on organic-metal halides, in information processing technology
Dr. Mazur is an Assistant Professor in Academic Centre for Materials and Nanotechnology, AGH University of Science and Technology, Kraków, Poland. He is currently working on nanoparticle assembly processes, including metal nanoparticles, magnetic nanoparticles and semiconductor quantum dots (perovskites); surface functionalization – hydrophilic/hydrophobic + fluorescent capping agents. He also has expertise in semiconductor-based thin layer devices, serving as memristors; working with a variety of materials – hybrid perovskite and perovskite-like materials in a form of thin layers, graphitic carbon nitride quantum dots synthesis and characterization (memristive layer functionalization), information processing, memristive networks.

Dr. Vijayakumar Chakkooth
Topic of Lecture
Halide Perovskite Materials for Optoelectronic Applications
Dr. Vijayakumar Chakkooth is the Principal Scientist in CSIR- National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram. He has expertise in Halide Perovskites, Thermoelectric Composites, Fluorescent Materials, Supramolecular Chemistry and Photophysics. He did his PhD in 'Functional Supramolecular Materials' under the guidance of Prof. A. Ajayaghosh. Dr. Vijayakumar has been recognized by several awards, including the prestigious Ramanujan Fellowship (DST-2013), Kerala State Young Scientist Award (KSCSTE-2017), and Raman Research Fellowship (CSIR-2021; Host Institute: Purdue University, USA). He has established many collaborations with high-ranking research institutions such as Osaka University (Japan), National Institute for Materials Science (Japan), Hokkaido University (Japan), Uppsala University (Sweden), ITMO University (Russia), A. N. Frumkin Institute of Physical Chemistry and Electrochemistry (Russia), AGH University of Science and Technology (Poland), Mahidol University (Thailand), Universiti Kebangsaan (Malaysia), and Purdue University (USA).

INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY AND MATERIAL SCIENCE

INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY AND MATERIALS SCIENCE
ICNMS 2023
 With a focus on
Quantum dots & its applications in cancer therapy
 Sponsored by

National Centre for HACCP Certification
 Organized by

PG & Research Department of Chemistry
Mar Ivanios College (Autonomous)
 Mar Ivanios Vidya Nagar, Nalanchira
 Thiruvananthapuram-695015
 Kerala, India
 in collaboration with
Swasthi Foundation
18-19 December 2023
Venue: Mar Gregorios Hall
Mar Ivanios College (Autonomous)

INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY AND MATERIAL SCIENCE:

PG and Research Department of Chemistry Mar Ivanios college conducted a International conference on Nano Technology and Material Science ICNMS 2023 with a focus on quantum dots and its application in Cancer Therapy. The conference was conducted on 18-19 th December.

The event aimed to exchange knowledge among students about nanotechnology and material science. Through this conference students were able to gain indepth knowledge of nanotechnology and material science. Each sessions was carried out by experts of the field like professor R Justin Joseyphus, NIT Triruchirapalli and many other renowned professors.

Each students who participated in the session was able to understand basic concept about this topic to complex ones.

ORGANIZING COMMITTEE

- Rev. Fr. Vinoy Varghese, Principal, Mar Ivanios College (Autonomous)
- Prof. K. V. Thomakutty, Secretary, HSC Colleges
- Rev. Fr. Saji R., Bursar, Mar Ivanios College (Autonomous)
- Dr. Manju K. G., Controller of Examinations, Mar Ivanios College (Autonomous)
- Rev. Dr. Giju Thomas, Dean of Studies, Mar Ivanios College (Autonomous)
- Dr. Saji C. Joseph, Coordinator & Head, Department of Chemistry, Mar Ivanios College (Autonomous)
- Dr. R. Selwin Joseyphus, Convener, ICNMS 2023
- Dr. Sonia Mol Joseph, Organizing Secretary, ICNMS 2023
- Dr. Jinu M. John, Co-convener, ICNMS 2023
- Ms. Jafin Sam, Co-convener, ICNMS 2023

EXECUTIVE COMMITTEE

- Dr. Saja Matha, Assistant Professor
- Dr. Sajith Kurian, Assistant Professor
- Ms. Beamol Mary Mathew, Assistant Professor
- Dr. Soniy George, Assistant Professor
- Dr. Robin Rajan J. Methikkalam, Assistant Professor

ADVISORY COMMITTEE

- Prof. (Dr.) Jaruju Narasimha Moorthy, Director, IISER, Thiruvananthapuram
- Prof. (Dr.) Aryyappanpillai Alayappan, NIST, Thiruvananthapuram
- Prof. (Dr.) Kuruvilla Joseph, IIST, Thiruvananthapuram
- Prof. (Dr.) Mahesh Narayan, IISER, Thiruvananthapuram

REGISTRATION FEE

FOREIGN DELEGATES	₹ 80
FACULTY MEMBERS	₹ 600/-
RESEARCH SCHOLARS	₹ 250/-
PG STUDENTS	₹ 150/-

** ACCOMMODATION CHARGES NOT INCLUDED
 LAST DATE FOR REGISTRATION AND ABSTRACT SUBMISSION IS: 15/12/2023

CONTACT US

Dr. R. SELWIN JOSEYPHUS
 CONVENER (ICNMS 2023)
 DEPARTMENT OF CHEMISTRY
 MAR IVANIOS COLLEGE (AUTONOMOUS)
 NALANCHIRA, THIRUVANANTHAPURAM 695015, KERALA
 TEL.: +91 9629459936
 icnms2023@mic.ac.in

INVITED SPEAKERS

- Prof. (Dr.) Mohanan Kunnummal, Hon' Vice-Chancellor, Kerala University of Health Sciences & University of Kerala, Thiruvananthapuram
- Prof. (Dr.) Jaruju Narasimha Moorthy, Director, IISER, Thiruvananthapuram
- Prof. (Dr.) Dr. Vasudevan Pillai Biju, Hokkaido University, Japan
- Prof. (Dr.) Suresh Das, IISER, Thiruvananthapuram
- Prof. (Dr.) Kuruvilla Joseph, IIST, Thiruvananthapuram
- Prof. (Dr.) Hubert Joe, University of Kerala, Thiruvananthapuram
- Prof. (Dr.) R. Justin Joseyphus, NIT, Triruchirapalli
- Dr. Raji Varghese, IISER, Thiruvananthapuram
- Dr. G. Arntien Jacob, London Center for Nanotechnology, UK

COMMITTEES

PATRON & MANAGER
HIS BEATITUDE MORAN MOR BASELIOS
CARDINAL CLEEMIS CATHOLICOS
 Major Archbishop of the Malankara Syrian Catholic Church

CO-PATRON
 His Excellency Most Rev. Dr. Mathews Mar Polycarpus
 Auxiliary Bishop of the Major Archieparchy of Trivandrum

ABOUT THE COLLEGE

The College was established in 1949 and pursues excellence upholding the 50-digitized vision of our revered Founder, Servant of God Archbishop Mar Ivanios. The College currently offers 18 Under Graduate degree programmes and 9 post-graduate programmes. Upholding academic excellence, the Institution has established six research centers. Initially, a college affiliated with the erstwhile University of Travancore, the College has been affiliated with the University of Kerala since 1951. Mar Ivanios College is the first Institution in the University of Kerala to receive accreditation from the National Assessment and Accreditation Council (NAAC) in 1990. The College was also the first to be re-assessed and re-accredited with an "A" Grade by NAAC in 2004. In 2011 the College was re-assessed by the NAAC Peer team as part of the Third Cycle of the re-accreditation process with an "A" grade. Mar Ivanios College became the first private college affiliated with the University of Kerala to receive the status of College with Potential for Excellence (CPE) from the UGC. The College has been conferred Autonomy status by the UGC since June 2014. In 2019 the College underwent the 4th cycle of the re-assessment process by NAAC to obtain an "A+" grade. The National Institutional Ranking Framework (NIRF) ranked the college at 36th, 29th, 48th, 44th 50th and 45th positions in the NIRF Rankings (for Arts & Science Colleges) 2017, 2018, 2019, 2021, 2022 and 2023 respectively. In 2019 the college has conferred the status of a UGC-Paranamb Mentor College.

ABOUT THE DEPARTMENT

The Department of Chemistry was established in 1957 and the post-graduate course was started in 1964. A research centre in Chemistry was established in the College in 1976, with a view to promote research interests, both among the students and the teachers of the Department. Currently the Department offers under-graduate courses, post-graduate courses and research programmes. The Department is an approved research center for Chemistry under the University of Kerala. Chemistry is offered as a complementary course to the UG students of Physics, Botany and Zoology. From its inception, the Department also offers various add on-courses such as diploma in Pharmaceutical Chemistry. Certificate courses in Principles of Phytochemistry and Instrumental Methods of Analysis. The galaxy of eminent alumni bears ample testimony to the department's excellence as a result of the hard work and dedication of a team of committed faculty members, guided by able administrators. The Department is a DST-FIST supported Department. The golden jubilee of the PG department of Chemistry was celebrated in the academic year 2015-16. The Department has produced several nationally and internationally renowned scientists and professors who are holding positions of high esteem. The Department provides consultancy services to IGO/NIU and undertakes projects from various industries.

FOCUS AREA OF THE CONFERENCE

- Biomaterials
- Ceramics
- Electronic materials
- Luminescence and fluorescent materials
- Magnetic materials
- Materials for energy and the environment
- Nano electronics and photonics
- Nano toxicology
- Nanocomposites
- Nanomaterials
- Nanomechanics
- Semiconductors
- Superconductors

INTERNATIONAL TOPICAL LECTURES ON INFRARED AND RAMAN SPECTROSCOPIES (ILIRS 2024)



International Topical Lectures on Infrared and Raman Spectroscopies (ILIRS 2024)

PG & Research Departments of Chemistry & Physics, Mar Ivanios College have jointly organized *ILIRS 2024* on 25th January 2024.

The lectures were delivered by *Dr. Novicia Paunovic and Dr. Bojan Stojadinovic* (Research Associate Professors, Institute of Physics, Belgrade, Republic of Serbia).

Dr. Novicia Paunovic spoke about *Models in far-infrared spectroscopy* & Dr. Bojan Stojadinovic spoke about *Spin-Phonon interaction in multiferronic nanostructures*.

SCIENCE FACILITATION PROGRAM (SFC)



The Department of Chemistry is conducting hands-on training in chemistry experiments for talented school students in Trivandrum of standards VIII–IIIX. The duration of the program is one year and is conducted every second Saturday of the month from 9.30 a.m. to 4 p.m. The selected UG and PG students of Mar Ivanios College act as the teacher facilitators to carry out the experiments in the laboratories. Thus, this is a twin-objective program in which both college and school students benefited. In the year 2023–'24, Mr. Aswanth S. of FDP 3rd year was the student facilitator and released a lab manual of chemistry experiments. Dr. Suja Mathai is the faculty coordinator of the program.



KERALA PIRAVI CELEBRATION



November 1st, the Kerala Piravi day was celebrated with much energy and cultural outburst by the Chemistry Department of Mar Ivanios College. Dr. Suju C. Joseph, Head of the Department, inaugurated the program which was followed by cultural events by students and staff.

TEACHERS' DAY CELEBRATION



"Teachers are the golden lamps who lead us to success"

The Chemistry Department of Mar Ivanios College celebrated Teachers' Day by honouring our teachers for their valuable contribution to the betterment of the society. Former students of our college visited us on the auspicious occasion to honour our dear teachers.

"If you want something done right, do it yourself"

DIPLOMA IN PHARMACEUTICAL CHEMISTRY (DPCH)



In the academic year 2023-'24, this add-on course offered by the PG and Research Department of Chemistry was registered by 52 students from Chemistry, Zoology, and Botany Majors and from various semesters. Talk from industrial people and a visit to a pharmaceutical company Kerala State Drugs and Pharmaceuticals Ltd., Alappuzha, Kerala, are the specialties of this course. 49 students have appeared for the exam, with 100% pass, out of which 3 have A+, 18 A, 23 B, and 5 C grades. Each student has done excellent work and has been able to complete the course in the stipulated time. The convocation ceremony was held on 22nd March 2024 and Dr. Achuthsankar S. Nair, was the Chief Guest. Dr. Suja Mathai is the Co-ordinator of the program.

CHRISTMAS CELEBRATION & SNEHAVEEDU VISIT



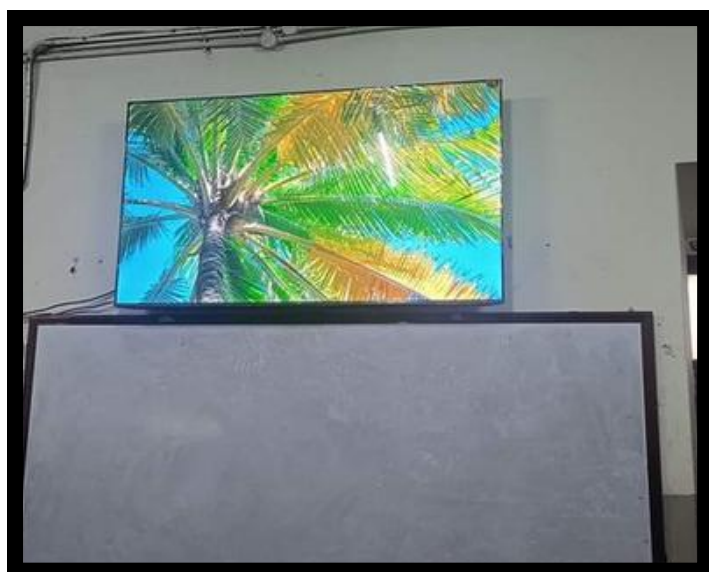
The Department of Chemistry conducted the Christmas Celebration on 22nd December, 2023. Dr Suju C. Joseph, The Head of the Department addressed the gathering by beginning with a prayer song.

Following the address, the students of Chemistry Department performed a beautiful set of Malayalam Christmas carols which was followed by dance. The celebration was then continued with Christmas tree and crib competition. The faculty members and the students the celebrated Christmas by visiting Mar Gregorios Snehaveedu, the Divine home of destitutes at Nalanchira by providing them a medical bed with mattress as christmas gift and spending some time with them with laughter and joy. Rev. Fr. George Joshua, Director of Snehaveedu delivered the Christmas message.

NATIONAL SCIENCE DAY CELEBRATION



Mar Ivanios College (Autonomous), through its Department of Chemistry, celebrated National Science Day with an interdepartmental quiz competition. The theme for the event was "Indigenous Technologies for Viksit Bharath." Teams, each comprising two members, participated, with no limit on the number of teams from each department. The competition awarded a first prize of Rs 3,000 and a runner-up prize of Rs 1,500. The quiz was hosted by Dr. James T. Joseph, a former faculty member of the Chemistry Department. The event took place on Wednesday, February 28, 2024, at 9:30 AM in Mar Gregorios Hall.



3DC Chemistry class was made Hi tech. Thanks to the BSc Chemistry (1994-1997 batch) for their monetary contribution of Rs 55000.

STUDENT ACHIEVEMENTS



Shaunsha Zacharia of 2020-2023 batch has secured AIR 48 in JAM 2024



Neha Sharon S S of 2020-2023 batch qualified for JAM 2024



Aiswarya H S of 2020-2023 batch qualified for JAM 2024



Gayathri K K of S6 BSc Chemistry got selected to the Early Admit M. Sc. Programme of IIT Gandhinagar in Msc Chemistry



Navaneetha P R of S6 BSc Chemistry qualified for JAM 2024



Krishna Priya of S6 BSc Chemistry qualified for JAM 2024



Febin Santhosh of S4 BSc Chemistry got selected to Kerala University Gymnastics Team For All India Inter Varsity Championship 2023 24



Anamika A S of S4 BSc Chemistry secured first in Short Story Writing Malayalam in Kerala University Youth Festival



Sreelekshmi V S of S4 Chemistry successfully completed her social work volunteership with Insight for Innovation and National Service Scheme Kerala State Cell as part of Project Aksharam done in association with Thiruvananthapuram District Administration



Abhishek A R of S4 Chemistry successfully completed his social work volunteership with Insight for Innovation and National Service Scheme Kerala State Cell as part of Project Aksharam done in association with Thiruvananthapuram District Administration



Janaki B R of S4 Chemistry successfully completed her social work volunteership with Insight for Innovation and National Service Scheme Kerala State Cell as part of Project Aksharam done in association with Thiruvananthapuram District Administration



Durgalekshmi M of S4 Chemistry successfully completed her social work volunteership with Insight for Innovation and National Service Scheme Kerala State Cell as part of Project Aksharam done in association with Thiruvananthapuram District Administration



Aswin V J of S2 BSc Chemistry won the first prize in the first prize in the quiz competition -"Quizarium '24" conducted by Sri Sathya Sai Arts and Science College 1 st in Energy Management Centre and .National Service Scheme Quiz Zonal Level and Kerala Media Academy Quiz State Zonal Level



Mohammad Jassim Noushad of S2 BSc Chemistry secured Gold And Silver in Amateur State Kickboxing Championship and Kerala State MMA Championship

FACULTY ACHIEVEMENTS



Dr. Suju C. Joseph

- Coordinator in-Charge & Examination Superintendent, IGNOU Study Centre, Mar Ivanios College (Autonomous).
- Secretary, AMICOS (Association of Mar Ivanios College Old Students) .
- President, Mar Ivanios College Cooperative Society.
- Editor of the News Letter CRSI, Kerala Chapter
- Chairman, Board of Studies in Chemistry, Mar Ivanios College (Autonomous)
- Resource person, Conference on Life Skills Education organized by Indian Association of Life Skills Education and Mar Theophilus Training College from 4th - 6th January 2024.
- Key note address during the *International Colloquium on Education, Research & Innovation.* organized by Mar Theophilus Training College, Thiruvananthapuram on 27th January 2024.
- Co-convenor, National Seminar on Education, Environment and Economy from 13th to 15th March, 2023 organized by the Management, Malankara Catholic Colleges.
- Coordinator, INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY AND MATERIALS SCIENCE (ICNMS 2023) organized by the Dept of Chemistry, Mar Ivanios Autonomous College on 18th & 19th December 2023.
- Resource person, International Webinar organized by J.A. College, Periyakulam, TN on 19th September.



Dr. Suja Mathai

Publications:

- Edited Book titled “Bioactive Conductive Polymers as Scaffold Coatings” by Eliva Press SRL, an International Publisher in Moldova, Europe, on 25-07-2023, with ISBN:978-999498924 9.
- “Anti-inflammatory Effects of Tellurium Dioxide-Niobium pentoxide Nanocomposite Coatings on Titanium Implants” in Materials Today: Proceedings (Elsevier) with ISSN 2214-7853.
- “Antibacterial Effect of Transition Metal Based Bioactive Nanocomposite Coatings on Titanium Implants” in Eur. Chem. Bull. with ISSN 206353462023, 12(10), 9558-9581.

Presentations in International Conferences:

- “Tantalum Pentoxide-Poly(Amidoamine) Dendrimer Self-Healing Antibacterial Nanocomposite Coating for Orthopedic Implants” at the International Conference AFMD 2024 on February 26-29, 2024.
- “In Vitro Study of Sc₂O₃ -PPI Dendrimer Nanocomposite as Antimicrobial Implant Coating for Orthopedic Titanium Implants” at the International Conference AFMD 2024 on February 26-29, 2024.
- “Tantalum Pentoxide-Doped-Peptide dendrimer Nanocomposite Coating on Titanium Implants for Improving its Antibacterial efficiency and Osseointegration” at iNEEBA-2023 International Conference on October 1-2, 2023.

Recognitions/Awards:

Received the research incentive award for the academic year 2022-23 from the Research and Development Cell, Mar Ivanios College, in recognition of valuable contributions to the college's research activities. The award was presented during the inaugural session of Annual Researchers' Day on March 20, 2024.



Dr. R. Selwin Joseyphus

Research Publications:

- A. J. Joseph, M. Palpandi, A. M. P. Albert, Selwin Joseyphus Raphael, A. Dasan, "Impact of the position of the hydroxyl group in monohydroxy chalcones with 2-hydroxypropyl- β -cyclodextrin on their spectral, biological, and theoretical properties", *Journal of Macromolecular Science, Part B Physics*, 2024, 1-36.
- Noona S. K. P, Selwin Joseyphus Raphael, Pushparajan J, Arish D, "Recent advancements toward visible-light-driven titania-based nanocomposite systems for environmental applications: An overview", *Applied Surface Science Advances*, 2023, 18, p. 100487.
- Selwin Joseyphus Raphael, Pushparajan J, Akansha M, Johnson K, Arish D, "Investigation of Zn₂TiO₄ as fluorescence quenching probe for sensing of metal ions", *Results in Surfaces and Interfaces*, 2023, 12, p.100127.

Book Publications (Edited/Chapters):

- Sayyad V. A. M. Ali, E. Radhika, Suman, Selwin Joseyphus Raphael, "Intellectual Property Rights", (JEC Publications), 3, December 2023, 224 pages, (Amazon), ISBN: 978-93-5850-377-5.

Invited Lectures Delivered:

"Bio-inspired nanostructured metal complexes for biomedical applications", National Conference on Advanced Functional Materials (NCAFM-2024), Post Graduate & Research Department of Chemistry, Nazareth Margoschis College, Pillaiyanmanai, Tuticorin, Tamil Nadu, India, 22, February 2024.



Dr. Sonia Mol Joseph

Recipient of Teachers Associateship for Research Excellence (TARE) Grant (2022-2025) from DST-SERB, NEW DELHI

CHAPTER PUBLISHED IN BOOK:

- Joseph, S.M, Dev, A.R., 2023. Annonacea: Tropical medicinal plants with potent anticancer acetogenins and alkaloids, *Bioprospecting of Tropical Medicinal Plants*, Springer Nature, ISBN: 978-3-031-28780-0 DOI: <https://doi.org/10.1007/978-3-031-28780-0>

PUBLICATIONS:

- Dev, A.R., Joseph, S., 2024. Volatile chemical profiling and distinction of Citrus Essential Oils by GC analyses with correlation matrix; evaluation of its in vitro radical scavenging and microbicidal efficacy. *Results in Chemistry* (Elsevier) 7, 101460. DOI: <https://doi.org/10.1016/j.rechem.2024.101460> (IF: 2.3).
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- Dev, A.R., Joseph, S., 2023. Citrus Essential Oils: A Rational View on its Chemical Profiles, Mode of Action of Anticancer Effects/Antiproliferative Activity on Various Human Cancer Cell Lines. *Cell Biochemistry and Biophysics* (Springer) 81, 189-203. DOI: <https://doi.org/10.1007/s12013-023-01138-z> (IF: 2.9).

CONFERENCE PROCEEDINGS:

- Dev, A.R., Joseph, S., 2023. Citrus essential oils: Chemophenetics based on multivariate statistical analysis and screening the anti-breast cancer potential using MCF-7 cell lines. *Proceedings of National Seminar on Phytochemistry and Translational Research* 39, ISBN: 978-81-959794-6-2.
- Anoop S.P., Joseph, S., 2023. Multivariate correlation analysis of Clausena essential oils based on volatile constituents. *Proceedings of National Seminar on Phytochemistry and Translational Research* 61, ISBN: 978-81-959794-6-2.

- Dev, A.R., Anoop, S.P., Joseph, S., 2023. PCA, HCA and anticancer screening of selected Citrus essential oils. Annual Researchers' Conference, organized by the Research and Development Cell (RDC) of Mar Ivanios College (Autonomous), Thiruvananthapuram on March, 2023.

INVITED LECTURES:

- Citrus essential oils: Chemical profiling, chemosystematics and biological activities, Alumni lecture, Assumption College Autonomous, Changanacherry, Kottayam, Kerala, March, 2024.
- Synthesis of nano polymeric materials from beta cyclodextrin adjoined polymers for biomedical applications. International Conference on Recent Advances in Chemical Science (ICRACS-23) organized by St. Xaviers College (Autonomous), Tamil Nadu, India, September, 2023.
- New Conceptual Approaches in Research Methodology, National Science Day Celebrations, All Saint's College, Thiruvananthapuram, Kerala, February, 2023.

POSITIONS HELD:

Zonal Convener (South Zone) of Magnetic Resonance Society, Kerala (MRS-K) since August 2023



Dr. Sajith Kurian

- Meera, B., Vidhya, C., Nair, R.B., Surya, R. and Kurian, S., 2023. Sustainable sponge-like composite hydrogel evaporator for highly efficient solar steam generation. *Materials Today Sustainability*, 23, p.100439.
- Vidhya, C., Meera, B., Nair, R.B. and Kurian, S., 2024. Enhanced photocatalytic hydrogen evolution through suppressed electron-hole recombination in Cs₂AgBiBr₆-NC/g-C₃N₄ nanocomposites. *Catalysis Science & Technology*, 14(3), pp.746-757.



Dr. Jiffin Sam

- Mr Jiffin Sam has been awarded PhD in Chemistry by the CSIR-National Institute for Interdisciplinary Science and Technology (CSIR-NIIST), Thiruvananthapuram for his thesis titled "Development of zero discharge Ultrahigh Lime with Aluminium process for anionic contaminants - A step towards circular economy".



Dr. Binimol Mary Mathew

- Ms Binimol Mary Mathew has been awarded PhD in Chemistry by the University of Kerala for her thesis titled " Synthesis, characterization, crystal structures and applications of adducts of N-heterocycles and carboxylic acids".

PHOTO GALLERY





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