

2nd World Congress on ORGANIC CHEMISTRY

05
AUGUST , 2025

Virtual
Event

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Our Keynote Speakers



Sunita Bhagat
University of Delhi
India



Ashanendu Mandal
University of Calcutta
India




Nutan Sharma
SGT University
India



Thomas J Webster
Hebei University of
Technology
USA

Thank You All

A glass flask containing a green liquid, with green leaves and a small plant stem resting on a glass slide next to it.

KEYNOTE PRESENTATIONS

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05, 2025

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Sunita Bhagat

University of Delhi
India

Advancing Synthetic Approaches and Bioactivity Assessment of Therapeutically Promising Natural and Marine-Derived Compounds

Abstract:

The practical and efficient synthesis of biologically active molecules continues to be a central challenge in modern organic chemistry. Natural products, especially those derived from marine sources, have historically provided potent pharmacologically active compounds used in the treatment of various diseases. These marine natural products are structurally diverse and complex, and display a broad range of biological properties such as antiviral, antimicrobial, antioxidant, anti-inflammatory, and anticancer activities. Despite their promise, the direct use of these natural compounds is hindered by several issues. Their extraction and purification from marine organisms are not only time-consuming and technically demanding, but also yields very small quantities. This restricts their full pharmacological evaluation, structural modifications, and further drug development. Additionally, their structural complexity makes chemical derivatization difficult, limiting access to analogs that are vital for structure-activity relationship (SAR) studies and drug optimization. To overcome these limitations, our research is focused on the total synthesis of biologically active marine and natural products in scalable quantities[5,6]. This allows for the detailed investigation of their biological roles and the possibility of tailoring their properties through structural modifications. A key aspect of our work involves the incorporation of fluorine into these molecular frameworks. Fluorine is known to enhance bioavailability, metabolic stability, and target binding in many pharmaceutical agents, making fluorinated analogues attractive candidates for drug development. Our approach combines molecular modelling, rational drug design, and mechanism-guided synthetic strategies to develop novel fluorinated heterocycles inspired by marine natural products. The design rationale, synthetic methodologies, and biological relevance of these compounds will be discussed, highlighting their potential as new therapeutic leads.

Biography

Sunita Bhagat is Professor, Department of Chemistry, ARSD College, University of Delhi. She has teaching and research experience of about thirty years and has published 55 research papers in various international and national journals of repute, authored three books, three book chapters and awarded one patent to her credit. She has delivered talks and made presentations in more than forty international and national conferences/workshops. Currently she is Fellow, Delhi School of Public Health, Institute of Eminence, DU. She is recipient of many prestigious awards viz. INSA Teacher Award 2017, Excellence award for teachers March 2023, University of Delhi, Annual Research Excellence Award, ARSD College 2023, DU, IoE Fellow, DSPH, DU, 2022. She is member of many professional bodies viz. ACS Organization for Women in Science for Developing World (OWSD), Royal Society of Chemistry, LONDON, Life Member of Chemical Research Society of India (CRSI), Indian Society for Chemists and Biologists (ISCB), Indian Science Congress Association (ISCA) and Association of Chemistry Teachers (IACT)

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Ashanendu Mandal

University of Calcutta
India

Adsorptive removal of organic pollutant phenol from wastewater

Abstract:

This research aims for adsorptive removal of phenol from wastewater by solid waste materials viz. guava tree bark, rice husk, neem leaves, activated carbon from coconut coir, rice husk ash, red mud, clarified sludge from basic oxygen furnace and activated alumina. The characterizations of the adsorbents are performed by SEM, XRD, FTIR and BET analyzers. The experiments of phenol removal are carried out in batch process with the variation of initial phenol concentration (5–500 mg/L), initial pH (2–12), adsorbent dose (0.10–20 gm/L), temperature (25–50°C) and contact time (30–600 min). The maximum phenol removal percentage was found with neem leaves used as adsorbent and it was 97.50%. The kinetics study shows that the pseudo-second order model is best fitted for all adsorbents except red mud. The kinetic modeling shows that the adsorption mechanism is supportive of film diffusion, intra-particle diffusion and chemisorption for all adsorbents. The isotherm analysis suggests that Freundlich isotherm model is best supportive for guava tree bark, rice husk, neem leaves, activated carbon, red mud and activated alumina, whereas Langmuir and D-R isotherm are best supportive for rice husk ash and clarified sludge respectively. The thermodynamics shows the spontaneity, randomness and endothermic/exothermic nature of the adsorption processes. The ANN modelings using Levenberg–Marquardt and Scaled Conjugate Gradient algorithms establish that the experimental and predictive data are within allowable range. The studies of scale-up designs, the regeneration of adsorbents and the safe disposal of used adsorbents show that these adsorbents can be used for commercial applications. Further, the column study of phenol removal is also carried out using the most efficient batch adsorbent neem leaves. The research concludes that all these adsorbents can be used commercially for removal of toxic phenol from wastewater to ensure water recycling in industry.

Biography

Ashanendu Mandal has graduated as B. Sc in Chemistry and B. Tech in Chemical Engineering from University of Calcutta. He has got his M. Tech Degree in Chemical Engineering from IIT, Kharagpur. He has acquired MBA degree in Finance from IGNOU, New Delhi and has undertaken an Advanced Management Program from IIM Calcutta including its integrated overseas program in several European countries. He has also acquired the Degree of Ph. D. (Tech) in Chemical Engineering from University of Calcutta. Dr. Mandal has worked in ONGC for more than 34 years and his experience includes commissioning, modifications, safety, operations, artificial lifts, pressure maintenance, EOR and planning in offshore and onshore oilfields. He has also vast experience in marketing of upstream and downstream petroleum products. He has undertaken several training programs in oil and gas in USA, Canada and Singapore. Dr. Mandal has published technical papers in Chemical Weekly and research papers in many international journals. He is also a reviewer of research papers in international journals. He has visited more than 18 countries for participating in international conferences as invited speaker, panelist or moderator. He is also engaged in delivering virtual presentations in several international conferences. Dr. Mandal is a lifetime member of Indian Chemical Society and Indian Science Congress.

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Nutan Sharma

SGT University
India

Exploitation of Green Chemistry Toolkit for the Eco-Friendly Syntheses of Nitrogen containing Heterocycles

Abstract:

Green or sustainable chemistry has ushered in designing processes and products that minimize the generation or use of hazardous substances, lesser energy and time consuming, easier to undertake, degeneration of drastic materials using reusable reagents, and more economical. Green chemistry, nowadays, has gained much attention because of increasing environmental safety concerns and cost efficiency among various synthetic processes. Heterocyclic substructures are an integral part of natural products, pharmaceuticals, agrochemicals, and macromolecules (polymers and macrocycles). Moreover, they also have applications as sanitizers, antioxidants, developers, corrosion inhibitors, as copolymers, dyes and anticancer drugs. Novel approaches for the construction of N-heterocycles are in high demand and have impacted both organic and medicinal chemists to enormous extent. Thus, chemists from worldwide continuously thrive for new approaches towards the synthesis of these moieties and it's a continuously evolving area involving approaches like classical condensation procedures, click reactions as well as domino multicomponent procedures. This has also involved use of recyclable magnetic nanocatalysts in multicomponent reactions for the construction of pharmacologically relevant heterocyclic scaffolds. Taking this into account, we have focused here on the green synthesis of five, six and seven membered N-heterocycles using eco-friendly strategies.

Biography

Nutan Sharma is a faculty member at SGT University, India, with research expertise in organic and green chemistry. Her work emphasizes the eco-friendly synthesis of nitrogen-containing heterocycles using the principles of green chemistry. She is dedicated to advancing sustainable chemical methodologies that reduce environmental impact while maintaining efficiency and innovation in drug and material development.

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Thomas J. Webster

Hebei University of Technology
USA

30,000 Nano Implants in Humans with No Infections, No Loosening, and No Failures

Abstract:

Implant infection is rising with the U.S. Centers for Disease Control predicting one person every three seconds will die from a bacteria infection by 2050. Nanomedicine is the use of nanomaterials to improve disease prevention, detection, and treatment which has resulted in hundreds of FDA approved medical products. While nanomedicine has been around for several decades, new technological advances are pushing its boundaries. For example, this presentation will provide an over 25 year journey of commercializing nano orthopedic implants now in over 30,000 patients to date showing no signs of failure. Current orthopedic implants face a failure rate of 5 – 10% and sometimes as high as 60% for bone cancer patients. Further, Artificial Intelligence (AI) has revolutionized numerous industries to date. However, its use in nanomedicine has remained few and far between. One area that AI has significantly improved nanomedicine is through implantable sensors. This talk will present research in which implantable sensors, using AI, can learn from patient's response to implants and predict future outcomes. Such implantable sensors not only incorporate AI, but also communicate to a handheld device, and can reverse AI predicted adverse events. Examples will be given in which AI implantable sensors have been used in orthopedics to inhibit implant infection and promote prolonged bone growth. In vitro and in vivo experiments will be provided that demonstrate how AI can be used towards our advantage in nanomedicine, especially implantable sensors. Lastly, this talk will summarize recent advances in nanomedicine to both help human health and save the environment.

Biography

Thomas J. Webster's (H index: 129) degrees are in chemical engineering from the University of Pittsburgh (B.S., 1995; USA) and in biomedical engineering from RPI (Ph.D., 2000; USA). He has formed over a dozen companies who have numerous FDA approved medical products currently improving human health in over 30,000 patients. His technology is also being used in commercial products to improve sustainability and renewable energy. He is currently helping those companies and serves as a professor at Brown University, Saveetha University, Hebei University of Technology, UFPI, and others. Dr. Webster has numerous awards including: 2020, World Top 2% Scientist by Citations (PLOS); 2020, SCOPUS Highly Cited Research (Top 1% Materials Science and Mixed Fields); 2021, Clarivate Top 0.1% Most Influential Researchers (Pharmacology and Toxicology); 2022, Best Materials Science Scientist by Citations (Research.com); and is a fellow of over 8 societies. Prof. Webster is a former President of the U.S. Society for Biomaterials and has over 1,350 publications to his credit with over 55,000 citations. He was recently nominated for the Nobel Prize in Chemistry. Prof. Webster also recently formed a fund to support Nigerian student research opportunities in the U.S.

A glass flask containing a green liquid, a test tube, and some green leaves on a light blue background.

ORAL PRESENTATIONS

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Arianna Gelain

University of Milan
Italy

Developing inorganic nanoparticles as novel antibiofilm agents

Abstract:

Biofilm consists of cells surrounded by a self-produced extracellular polymeric matrix and its production is a strategy used by microorganisms to survive in the environmental conditions. Through biofilm formation the microorganisms can settle a wide variety of surfaces (such as living tissues, food processing equipment, water supply systems etc.) providing health benefits (e.g. gut microbiota) but also risks since most human microbial infections are related to bacterial biofilms, often showing high tolerance to the antibacterial drugs.

To overcome the diffusion of multidrug-resistant pathogens we focused our efforts on the development of new anti-biofilm surfaces by an approach avoiding the biofilm formation without interfering with microbial life, with the aim to reduce the resistant selection. Taking into account our previous researches, concerning the identification of natural compound derivatives (p-aminosalicylic and p-aminocinnamic acids) as non-toxic anti-biofilm agents, we studied their potential application for the functionalization of silica nanoparticles to develop new anti-biofilm coatings. The synthetic process was monitored through FT-IR and Raman spectroscopy supported by XPS and TGA. The obtained nanosystem were used to coat glass coverslips, as model surfaces, that were characterized through SEM, AFM and other physical measurements. The anti-biofilm activity of the new material was tested against *P. aeruginosa*, as model for Gram negative bacteria, and the promising results will be presented.

Biography

Arianna Gelain is an Assistant Professor at the University of Milan, Faculty of Pharmacy. She graduated in Pharmaceutical Chemistry and Technology and obtained a Ph.D. in Medicinal Chemistry at the University of Milan. Her scientific activity concerns the design, synthesis, and related structure-activity relationship studies of novel small molecules as signaling pathway modulators (in particular STAT3 inhibitors) and potential antimicrobial (anti-biofilm, antitubercular and antimalarial) agents. She is the author and co-author of 62 scientific publications in peer-reviewed and SCOPUS-indexed international journals, one chapter book, and over 65 contributions (oral and poster communications) presented at national and international congresses.

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Ajeet Chandra

Kyung Hee University
Republic of Korea

Oxidation of Thiols with IBX or DMP: One-Pot Access to Thiosulfonates or 2-Iodobenzoates and Applications in Functional Group Transformations

Abstract:

Ortho-iodoxybenzoic acid (IBX) and Dess–Martin periodinane (DMP) are both hypervalent iodine(V) reagents widely employed in various oxidative transformations involving substrates such as alcohols, amines, imines, phenols, and naphthols. These reagents are considered environmentally friendly and readily accessible, often providing excellent yields, which makes them a promising candidate in synthetic organic chemistry for selective oxidative processes. Notably, they offer an advantage by eliminating the need for transition metals, and most transformations proceed efficiently at room temperature. In this work, I present the oxidative transformation of thiols using IBX and DMP (Org. Lett. 2023, 25, 6256– 6261). While oxidation of thiols with an equivalent of IBX at room temperature has previously been reported to afford disulfides within a short reaction time. Further exploration with DMP revealed its remarkable selectivity for converting thiols to thiosulfonates under mild conditions in a short period. Additionally, when thiols are treated with IBX over extended periods and with modified reaction conditions, a mixture of disulfides and thiosulfonates is formed. By optimizing this protocol—using an excessive amount of IBX and prolonged reaction times—selective formation of thiosulfonates is achieved, proceeding via disulfide intermediates. Interestingly, benzyl thiols undergo highly selective oxidation to yield both thiosulfonates and benzyl benzoates. The formation of benzyl benzoates introduces a novel application for subsequent functional group transformations into alcohols, aldehydes, and other derivatives. This newly established approach holds significant promise for future developments in synthetic methodology.

Biography

A. Chandra completed his doctoral program at the Department of Chemistry under the excellent supervision of Prof. J. N. Moorthy at the Indian Institute of Technology (IIT) Kanpur, India. He started his career in research after a post-graduation specialization in organic chemistry by joining a doctoral program in the Department of Chemistry at IIT Delhi, India, and started exploring the area of peptide and dendrimer chemistry. Further, he moved to IIT Kanpur, and his doctoral program was in synthetic methodology using oxidizing hypervalent iodine (V) reagents, Oxone, etc. The substrates were employed for the oxidative transformations: olefins, indoles, thiols, naphthols, alcohols, etc. Afterward, he joined the IIT Bombay and explored the asymmetric synthesis using asymmetric amines and also novel aromatic heterocycles using the sulfonylphthalides at ambient temperature

conditions. Presently, Dr. A. Chandra is appointed to a research professor position at the Department of Information Display at Kyung Hee University, Seoul. At this time, he is exploring the BODIPY- and MR-TADF-derived organic display materials. Currently, he is also developing the red and green display materials for the real display applications. He aimed to explore the highly efficient display materials for commercialization purposes. He has authored comparative organic chemistry books designed to support preparation for national exams (NET and GATE). Also planning to submit a manuscript for the international textbook in organic chemistry in the near future. The books have an interesting representation of the reaction mechanism, which can provide a better understanding to solve the complex problem of organic chemistry in an easier approach.

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Davor Margetic

Rudjer Boskovic,
Croatia

The utilisation of mechanochemistry in the synthesis of thioureas and guanidines

Abstract:

Guanidines are interesting molecules containing carbon surrounded by three nitrogen atoms, with unique structural characteristics that contribute to their remarkable physico-chemical properties. In particular, their high basicity (superbasicity) and ability to form hydrogen bonds set them apart from other organic compounds.(1) Their physicochemical properties make guanidines valuable in various applications, including their use as neutral, organic catalysts or components of receptor functionalities in anionic sensors.(2) Various guanidine derivatives are found in nature, and they have also been explored synthetically. Numerous synthetic routes and reagents have been employed for guanidine synthesis. Mechanochemistry has been recognised as a sustainable, solvent-free alternative to conventional organic solution-based synthesis. This solid-state synthetic approach offers several benefits, such as eliminating solvents, reducing the usage of chemicals, simplifying experimental procedures, and shortening reaction times. (3,4) Consequently, mechanosynthesis often provides higher reaction yields in more environmentally friendly conditions than solution synthesis. Solution and mechanochemical methods for the synthesis of thioureas and guanidines will be presented, and their efficiencies will be compared. Synthetic routes starting from aromatic amines, the preparation of isothiocyanates, followed by aromatic thioureas, and finally substituted guanidines will be discussed.

Biography

Davor Margetic is a researcher at the Rudjer Boskovic Institute, Croatia, specializing in the field of synthetic organic chemistry. His current research focuses on the application of mechanochemistry in the efficient and solvent-free synthesis of thioureas and guanidines. With a strong commitment to sustainable practices, he explores innovative mechanochemical strategies to advance environmentally friendly chemical processes.

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Shimaa Anwer Higazy

Egyptian Petroleum Research Institute
Egypt

Robust and Environmental-Friendly Nanocomposite Coatings for Combating Marine Fouling

Abstract:

A new series of polymeric nanocomposites was fabricated as an outstanding surface nanocomposite coating. The coatings' mechanical robustness and protective qualities of polymeric nanocomposites are essential objectives of this study. Many investigation techniques were used to clarify the structures, sizes, and morphologies of proposed polymeric nanocomposites and nanofillers. The created nanocomposite was filmed as a surface coating using an air-assisted spray technique. Various percentages of graphitic nanosheets were loaded into polymer resin and the produced nanocomposites were examined to investigate the structure-property relationship. The coated specimens were subjected to a salt spray test to examine their corrosion protection. Impact, T-bending, and crosscut test techniques were used to evaluate mechanical durability. The developed composites have several advantages, including elasticity, surface heterogeneity, and surface protection properties. As enchanting material, well-dispersed nanofiller distribution in the polymeric nanostructured coating offer potential surface coatings for environmentally sustainable applications.

Biography

Shimaa Anwer Higazy is a researcher at Egyptian Petroleum Research Institute, Egypt. She was awarded "Scientists for Next Generation master scholarship" for Egyptian young researchers sponsored by Academy of Scientific Research and Technology, in May 2010, and obtained her Master Degree in February 2013 from Chemistry Department of Science Faculty, Menoufiya University, Egypt. She completed her Ph.D. (2019) in Organic Chemistry, Menoufiya University, Egypt. She took part and attended domestic and worldwide events and conferences. She has authored numerous articles in high-impact, international journals. Her major researches are in Designing of eco-friendly, self-cleaning and anticorrosive surfaces for marine coating.

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Jamshed Hashim

University of Lakki Marwat
Pakistan

Novel Thiadiazine Thiones and their biological Screening as Prodrug Candidates

Abstract:

Drug Development or exploration of new lead compounds is always remain a fundamental field in health sciences. Drug resistance, environmental changes, emerging diseases and previously untreatable diseases with lesser side effects and better efficacy are main causes for the researchers/pharmacists to discover new bioactive compounds for drug development. Electrified and thrilled by the above mentioned facts, we were interested to develop some novel bioactive heterocycles for drug development. In literature, Thiadiazines heterocycles have good biological insights but with lesser derivatives development due to its tricky nature. Therefore, we successfully synthesized and reported several potent activities on Thiadiazines recently (see references 1-6). Our newly developed Thiadiazines showed several biological activities including potent anti-leishmanial, anti-inflammatory, anti-cancer, urease inhibition, analgesic, antimicrobial etc and their primarily model testing as prodrug candidate has been also positively explored.

Biography

Hashim has worked for Drug discovery as Postdoctoral fellow at BOKU University, Vienna, Austria-2023. In addition to this, Mr. Hashim did his PhD/Post doctorate on Bio-active Heterocycles from Karl Franzens University of Graz, Austria under the supervision of Prof. C. Oliver Kappe. Further to this, he has also more than 10 years research experience as an Assistant Professor/Co-PI at University of Lakki Marwat/ University of Karachi, NEDUET, Karachi, and Fauji Fertilizer Ltd. He has already developed some novel heterocycles (Thiadiazines); dihydropyrimidines and Natural Products Derived Crown Ethers. Alongside 25 papers in reputed journals; 04 patents have been already submitted on his recent findings.

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Garima Rana

Chandigarh University
India

Photocatalytic Biotechnology for Environmental Cleanup: Emerging Materials and Mechanisms

Abstract:

Environmental pollution caused by persistent organic contaminants poses a significant threat to ecosystems and public health. Conventional treatment methods often fall short in effectively eliminating these pollutants, particularly at low concentrations. In recent years, photocatalytic biotechnology has emerged as a powerful and sustainable strategy for environmental cleanup, offering the potential for complete mineralization of toxic substances under light irradiation.

This presentation will explore the latest advancements in photocatalytic materials, with a focus on nanostructured semiconductors, heterojunctions, and biomaterial-integrated catalysts that enhance photocatalytic efficiency. Emphasis will be placed on the design and modification of photocatalysts to optimize light absorption, charge separation, and surface reactivity. Furthermore, the integration of biotechnological approaches, such as enzyme-assisted degradation and microbial synergies, will be discussed to demonstrate how biological and photocatalytic systems can work in tandem for improved pollutant removal.

Mechanistic insights into reactive oxygen species (ROS) generation, electron-hole dynamics, and pollutant interaction pathways will be highlighted, providing a comprehensive understanding of how these materials function at the molecular level. Case studies involving the degradation of industrial dyes, pharmaceuticals, and endocrine-disrupting chemicals will illustrate practical applications and scalability prospects. By bridging materials science, photocatalysis, and biotechnology, this talk aims to present a holistic approach to environmental remediation, offering innovative pathways toward cleaner and more resilient ecosystems.

Biography

Garima Rana is a dedicated researcher and academic in the field of nanotechnology and condensed matter physics. She has 6 years of research experience. Currently serving as an Assistant Professor of Material Science at Chandigarh University since August 2024, she brings an extensive background in research and education, particularly focused on the synthesis and characterization of nanomaterials. She earned her Ph.D. and M.Sc. in Physics from Shoolini University, Solan, Himachal Pradesh, where she specialized in the development of metal oxide nanoparticles, composites, and magnetic materials through techniques such as sol-gel, hydrothermal synthesis, and co-precipitation.

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Poonam Kumari

University of Delhi,
India

Atom-Efficient, Sustainable, and Metal-Free Synthesis of Pyrazoles and Pyrazolo-Fused Pyridines/Pyrimidines: A Chemo- and Regioselective Approach

Abstract:

Pyrazoles and pyrazolo fused pyridines and pyrimidines are well known for their applications in the various fields like pharmaceuticals, agrochemicals and materials sciences. The diverse biological activities of pyrazoles make them valuable tools in drug discovery, agriculture, and biomedical research. Here, we have developed an atom economical chemo- and regio-selective reaction method for the synthesis of the biological important pyrazole derivatives from acetophenones and hydrazine or 3-aminopyrazole under acidic and basic conditions taking their applications under account. The acidic condition yields the pyrazolo-pyridine compounds while in alkaline medium, pyrazolo-pyrimidines were obtained in good to excellent yields. Bis-pyrazole derivative is also effectively produced under the same reaction conditions. The selectivity of the reaction can easily be tuned by shifting reaction from acidic to basic medium for the synthesis of pyrazolo-pyrimidines and pyrazolo-pyridines respectively. The reaction shows excellent functional group tolerance in the form of -F, -Cl, -Br, -NMe₂, -OH, -OMe, and -B(OH)₂ in good yields.

Biography

Poonam Kumari is Wise-Pdf, Department of Chemistry, ARSD College, University of Delhi. She has completed her PhD at the age of 32 years from Delhi University and postdoctoral studies from ARSD College, Delhi University. She has teaching experience of about 6 years. She has published 11 research papers in various international and national journals. She has delivered oral/poster presentations in international and national conferences/workshops. Currently she is working at ARSD College, University of Delhi as a Women Scientist (WISE-PDF). Her research work mainly focused on the synthesis of fluorinated Heterocycles based natural products.

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Guillermo Gallardo Vásquez

Farmacia Magistral JPG SKIN
Peru

Synthesis, characterization of silver tranexamate, and evaluation of the anti-bacterial effect of an O/W cream against *Staphylococcus aureus* ATCC 25923

Abstract:

This study was carried out in two phases; the first synthesis and characterization of Silver Tranexamate, for this purpose aqueous solutions of tranexamic acid and sodium hydroxide 0.005 mol each were mixed, stirred for 30 minutes, then an aqueous solution of silver nitrate 0.005 mol was added little by little; after 1 hour of stirring in a hermetically sealed container, a white solution was obtained; it was filtered and left in an oven at 30 ° C for 1 hour. A 65% reaction yield was obtained. For the characterization the following were carried out: IR Spectroscopy, Nuclear Magnetic Resonance, Raman, Elemental Analysis, Thermogravimetric Analysis. In the second phase, o/w creams were prepared based on the synthesized complex at concentrations of 0.25%, 0.5%, 1% and 2%. The Kirby Bauer method was used to determine the antibacterial effect of the cream in question. Statistical tests such as Levene's, Anova's, and Tukey's were used to identify statistical differences between the different concentrations. The complex was synthesized, and it was determined that the 2% o/w cream had the best antibacterial effect, but less so than silver sulfadiazine, with a 95% confidence level and a 0.05% error rate. Future research could be conducted with other bacteria present in burn wounds.

Biography

Q.F. Guillermo José Gallardo Vásquez is a graduate of the National University of Trujillo - Peru, with a Master's degree in Preparation and Development of Individualized Medications from the CEU San Pablo University - Spain, currently pursuing a Master's degree in Chemistry at the El Milagro State University - Ecuador and is General Manager of the company Farmacia Magistral JPG SKIN

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Sylwia Sowa

Maria Curie-Sklodowska University
Poland

Synthetic approach to 3-arylbenzo[b]phosphole oxides - new building blocks in benzophosphole family

Abstract:

Recently, the 3-arylbenzo[b]phosphole oxides become an essential motif in the chemistry of benzophosphole oxides.[1] During last decade the access these compounds has progressively broadened.[2] Here, we want to present our synthetic approach leading to these useful compounds.[3] Additionally, we discuss some of their photooptical properties.

Biography

Sylwia Sowa has completed her PhD in 2015 from Marie Curie-Sklodowska University in Lublin. She has completed two short-term foreign internships. She is assistant professor at Department of Organic Chemistry and Crystallochemistry at Marie Curie-Sklodowska University in Lublin. She has published than 12 papers, 1 monography and also participated in 3 book chapters.

SUPPORTING JOURNAL

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