University of Nizwa College of Arts & Sciences Department of Biological Sciences and Chemistry

The First Virtual Analytical Chemistry Conference (23-24 March 2022)

Analytical Techniques: Innovation & challenges

Conference Program

| Session Time | Title | Presenter | Chair |
|---|---|---|----------------------------|
| Wednesday, 23 Mar 2022 | | | |
| 09:40-09:45 am | Opening | | |
| 09:45 – 09:50 am | Welcome Speech | Prof. Ahmed Al-Rawahi The Chancellor of the University of Nizwa | |
| 09:50 – 09:55 am | Conference Brief | Dr. Mohammed Al-Sibani | |
| 09:55-10:00 am | Short video | | |
| Theme 1: Analytical Chemistry for Drugs Discovery | | | |
| 10:00-11:00 am | Keynote address Natural products and bioorganic chemistry approaches for drug discovery. | Prof. Muhammad Iqbal Choudhary | Dr. Ghulam Abbas |
| 11:00 -11:25 am | Session 1 Role of NMR spectroscopy in drug discovery. | Dr. Adnan Ali Shah | Prof. Javid Hussain |
| 11:25-11:50 am | Session 2 Study of molecular and biomolecular binding interaction using affinity capillary electrophoresis and microscale thermophoresis. | Prof. Dr. Sami Eldeeb | Dr. Mohammed Al- Sibani |
| 11:50-12:00 pm | Break | | |
| 12:00-12:25 pm | Session 3 Structure based design of histone deacetylase inhibitors for the treatment of parasitic diseases. | Prof. Dr. Wolfgang Sippl | Prof. Shehla Amer |
| 12:25-12:50 pm | Session 4 Interpretable machine learning on high performance computing architectures: application to personalized medicine and drug discovery. | Dr.Horacio Pérez-Sánchez | Dr. Zakira Naureen |

| 12:50 – 01:15 pm 01:15 – 02:00 pm | Session 5 Determination of the chemical composition and biological activities of essential oil of Teucrium polium L. from Riyadh province for preparation and optimization of oil-in-water nanoemulsion. Break | Dr.Waad Ayed Lafi Al Otaibi | Prof. Mayson Al Khatib |
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| | Theme 2: Industrial Analy | ysis and Process Control | |
| 02:00 -03:00 pm | keynote address Discovery and commercialisation of novel chemical synthetic methods. from laboratory to saleable products. | Prof. Declan G. Gilheany | Dr. Sulaiman Al Sulaimi |
| 03:00-03:25 pm | Session 1 Reuse of treated industrial wastewater in sustainable agriculture practice – A green technology concept. | Dr. Singanan Malairajan | Dr. Dunaboyina Vishnu |
| 03:25-03:50 pm | Session 2 Photoconversion of CO2 into value-added Products. | Prof. Muhammed Naeem Ashiq | Dr. Saima Farooq |
| 03:50 -04:00 pm 04:00 -04:25 pm | Break Session 3 | Dr. Sulayman A. Oladepo | Dr. Ahmed Hamaed |
| 04.00 -04.25 pm | Smart Sensors Based on Hairpin Probes, Silver Nanoparticles and Liquid Crystals. | Di. Sulayman A. Oladepo | DI. Anneu Hanaeu |
| 04:25-04:50 pm | Session 4 Ganoderma lucidum extract nanoparticles: production by expansion of supercritical fluid solution, optimization and evaluation of antioxidant ability. | Dr. Farhad Raofie | Dr. Aisha Al Abri |
| 04:50 -05:15 pm | Session 5 Biodegradable polymeric base material for water treatment uses | Prof. Dr. Abir Abdel-Naby | Dr. Fathima Hussain |
| Closing Remarks (15 min) | | | |
| Thursday, 24 Mar 2022 | | | |
| Theme 3: Material Analysis and Testing | | | |
| 10:00-11:00 am | Keynote address Graphene-based electrode materials for energy storage applications. | Prof. Hyun-Kyung Kim | Dr. Saima Farooq |

| 11:00 -11:25 am | Session 1 Electrochemical preparation of different classes of high-entropy materials for advanced applications. | Dr. Jagadeesh Sure | Dr. Dunaboyina Vishnu |
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| 11:25-11:50 am | Session 2 Fabrication and physicochemical investigations of the (Zinc oxide)- Poly(N-isopropylacrylamide-)- (Chitosan)-Poly (acrylic acid) based hybrid polymer microgel for potential applications. | Dr. Abbas Khan | Dr. Ahmed Hamaed |
| 11:50-12:00 pm | Break | | |
| 12:00-12:25 pm | Session 3 Analysis of corrosion inhibition of mild steel by gemini surfactants in hydrochloric acid. | Dr. Hariom Kumar Sharma | Dr. Fathima Hussain |
| 12:25-12:50 pm | Session 4 Sustainable cellulose nanocrystals and modified cellulose nanocrystal for water treatment. | Dr.Shadia Mahmoud | Prof. Javid Hussain |
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| 12:50 – 01:15 pm 01:15 – 02:00 pm | Session 5 Structural characterization of polymeric chitosan and mineral from Omani shrimp shells. Break | Ms. Hurya Ali Said Al Hoqani | Dr. Ghulam Abbas |

Theme 4: Environmental Analytical Chemistry

| 02:00 -03:00 pm | Keynote address Biopolymer ligands for efficient and eco-friendly transition and rare earth metals extraction from water sources. | Prof. Lutfor Rahman | Prof. Isam Kadim |
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| 03:00-03:25 pm | Session 1 Photocatalytic degradation of pharmaceuticals present in water and wastewater. | Dr. Bushra AlWahibi | Prof. Mayson Al Khatib |
| 03:25-03:50 pm | Session 2 Electroanalytical methods for quantitative detection of inorganic and organic toxic pollutant in various sources. | Prof. Pandian kannaiyan | Dr. Quazi Imranul |
| 03:50 -04:00 pm | Break | | |
| 04:00 -04:25 pm | Session 3 Sorafenib solubility in pure and mixed solvents: Abraham solute descriptors, solvent effect and preferential solvation Analysis. | Dr. Ali Faragitabar | Dr. Sulaiman Al Sulaimi |

| 04:25-04:50 pm | Session 4 Development of magnetic porous coordination polymer adsorbent for the removal and preconcentration of Pb(II) from environmental water samples. | Dr. Aisha Al-Abri | Dr. Ahmed Al Qteishat |
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| 04:50 -05:15 pm | Session 5 Recent advances in micro-gas chromatography - the opportunities and the challenges for environmental analysis. | Prof. Imadeddine Azzouz | Dr. Mohammed Al- Sibani |
| Closing Remarks (15 min) | | | |