12th International Vanadium Symposium
3-5 November 2021
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PROGRAMME (GMT+2 time zone)

Wednesday, 3rd of November, 2021

09:45	**Welcome & Announcements** Prof. Anastasios Keramidas Chair of V12	
	Moderator: Maria Olga Guerrero-Perez, *Departamento de Ingeniería Química, Universidad de Málaga, Spain*	
10:00	**Plenary Presentation** **The V12 bowl as an inorganic host molecule** Yoshihito Hayashi, Kanazawa University, Japan	
10:35	**Keynote Presentation** **(Imido)vanadium Complexes as Catalysts for Ring-Opening Metathesis Polymerization and Ethylene Dimerization/Polymerization** Kotohiro Nomura, Tokyo Metropolitan University, Japan & Kotohiro Nomura Tokyo Metropolitan University, Japan	
11:00	**BREAK**	
	SESSION 1: ORAL PRESENTATIONS	
	Title	**Presenter**
11:15	Vanadium catalyzed sustainable and selective toluene oxidation to benzaldehyde: an experimental and DFT investigation	Pierluca Galloni, University of Rome
11:35	Hydrazine Derivatives Controlled Vanadium-Catalyzed Coupling Reactions	Toshiyuki Moriuchi, Osaka City University, Japan
11:55	Efficient Synthesis of Heterohelicenes and Dehydroheterohelicenes	Hiroaki Sasai, The Institute of Scientific and Industrial Research Osaka University, Japan
12:15	Vanadium Photocatalyzed Carbon-Carbon Bond Cleavage and Functionalization in Small Molecules and Macromolecules	Han Sen Soo, Nanyang Technological University Singapore
12:35	Catalytic oxidation with oxidovanadium(V) complexes	Manas Sutradhar, Instituto Superior Técnico, Universidade de Lisboa, Portugal
12:55	Steric and Electronic Factors in the Anti-Cancer Activities of Non-innocent Vanadium Schiff Base Complexes	Peter Lay, University of Sydney, Australia
13:15	Biological roles of vanadium-transferrin binding	Aviva Levina, Australia
14:00 - 15:50	**SESSION 1: POSTER PRESENTATIONS**	
	Oxidovanadium(V) Complex of Triazole Based Ligand Supported on Chloromethylated Polystyrene and its Catalytic Activity for the Synthesis of Dihydropyrimidinones (DHPMs)	Abhilasha Chauhan, India
	VO2 + and UO2 2+ complexes with siderophore multibinding hydroxylamino-triazine ligands: Structural and stability studies	Aggelos Amoiridis, Cyprus
	Light induced vanadium catalyzed aerobic oxidation of vicinal diols	Angelica Terrin, Italy
	Ultrastructural analysis of the changes induced by sodium metavanadate in Plasmodium yoelii yoelii	Brenda Casarrubias-Tabarez, Italy
	Towards a-tocopherol estimation by EPR Spectroscopy through application of VOC18DEA as radical initiator on olive oil	Chryssoula Drouza, Cyprus
	Complex Formation in Liquid-Liquid Extraction Systems for Vanadium(V) Based on Azo Derivatives of Resorcinol and Xylometazoline Hydrochloride	Danail Hristov, Bulgaria
	Chemistry of dioxidovanadium(V) complexes with dibasic ONO donor ligands: Study of DNA/BSA interactions, and anticancer potential	Gurunath Sahu, India
	Arylimido)Vanadium(V)-Alkylidene Complexes for the Efficient Ring Opening Metathesis Polymerization of Cyclic Olefins	Jirapa Suthala, Japan
	Exploring the interaction of decavanadate with various cationic dyes	Juliana Morais Missina, Brazil
	Solution V K-Edge XANES and EXAFS Analysis of Catalytically Active Species in Vanadium Catalyzed Ethylene Polymerization	Kotohiro Nomura, Japan
	Applications of Decavanadate Complexes	Lukas Krivosudsky, Slovakia
	Vanadium(V) complexes with siderophore vitamin E-hydroxylaminotriazine ligands	Maria Loizou, Cyprus
	Synthesis and characterization of heteropolyoxo-fluoro vanadium/copper compound and its application as photoanode	Maria Michaelidou, Cyprus
	Experimental and Theoretical Studies on a Ternary Complex Obtained from Vanadium(V), 4-Nitrocatechol, and Xylometazoline Hydrochloride	Petya Racheva, Bulgaria
	Ultrafast Dual Responsive Oxovanadium Based Chiroptical Sniffers for Sarin Simulant	Snehasish Debnath, India
	New Mixed Ligand Oxidovanadium(IV) Complexes Incorporating 2–(arylazo) Phenolates: Synthesis, Structure and Biological Evaluation	Sudhir Lima, India
	Protein Binding and Cytotoxic Activities of Monomeric and Dimeric Oxido-Vanadium(V) Salan Complexes: Exploring the Solution Behavior of Monoalkoxido-Bound Oxido-Vanadium(V) complex.	Sushree Aradhana Patra, India

	Moderator: Manas Sutradhar, *Instituto Superior Técnico, Universidade de Lisboa, Portugal*	
	SESSION 2: ORAL PRESENTATIONS	
15:50	Redox Kinetics of Surface VOx Sites for Ethanol Oxidation	Israel Wachs, Lehigh University, USA
16:10	In situ characterization of porous VPO catalysts with fibrous structure: identifying the redox behavior of active sites	Maria Olga Guerrero-Perez, Spain
16:25	Evaluation of a dinuclear Vanadium(IV) complex with a bipodal N2O-donor ligand as catalyst in oxidation reaction of sulfur compounds with H2O2	Elizabeth Lachter, Brazil
16:40	Relations between redox behavior and catalytic performance of modified VOx/CeO2 catalysts during low-temperature NH3-SCR of NO	Thanh Huyen Vuong, Germany
16:55	Advanced vanadium-peroxido materials in catalytic transformations of industrially important organic substrates	Efrosini Kioseoglou, Greece
17:10	Light Driven Room Temperature Ambient Condition Conversion of Benzene to Phenol	Joyeeta Lodh, India
17:25	Photocatalytic oxidation of Lignin models using V(V) aminotriphenolate complex	Margarita Escudero-Casao, Italy
17:40	Reactant-induced transformation of mixed metal oxides in gas-phase catalysis: the peculiar behavior of Iron Vanadate and methanol	Tommaso Tabanelli, Italy
17:55	Glycerol valorization using bronze-based mixed oxides: differences between acid and acid-redox catalysts	Agustín de Arriba, Spain
18:10	**Break**	
18:25	**Plenary Presentation** **Vanadium: Promise and Opportunity for Current and Future Electrochemical Energy Storage Technologies** Amy Marschilok, Stony Brook University, USA	
19:00	**Keynote Presentation** **The Importance of Vanadium for High Temperature Molecule-based Magnets** Joel Miller, University of Utah, USA	

Thursday, 4th of November, 2021

	Moderator: *Manuel Aureliano, Universidade do Algarve, Portugal*	
13:00	**Plenary Presentation** **Improving upon propane to propene reaction over supported vanadia catalyst** Goutam Deo, Indian Institute of Technology Kanpur, India	
	SESSION 3: ORAL PRESENTATIONS	
	Title	**Presenter**
13:35	Vanadium peroxido zwitterionic species in anticarcinogenic processes	Athanasios Salifoglou, Aristotle Univeristy of Thessaloniki, Greece
13:55	Vanadium Chloroperoxidases as versatile Biocatalysts	Ron Wever, University of Amsterdam, The Netherlands
14:15	Exploring Dioxidomolybdenum(VI) Complexes for Trans-metalation to Oxidovanadium(V) Complexes	Mannar R. Maurya, Indian Institute of Technology Roorkee, India
14:35	Theoretical investigations of the reductive activation of O2 by Vanadium complexes	Athanasios Tsipis, University of Ioannina, Greece
14:55	**Break**	
15:10	Biogeochemistry of vanadium and microbial remediation	Baogang Zhang, China University of Geosciences, P. R. China
15:30	Reductive Activation of O2 to O22- from an amidate Vanadium(IV) Specie	Sofia Hadjithoma, Cyprus
15:45	Imido Complexes of Vanadium(IV): Synthesis, diversity, and catalytic applications	Christian Lorber, France
16:00	Influence of Temperature in Circular Dichroism of a Stereodynamic Probe	Roberto Penasa, Italy
16:15	Interaction of vanadium compounds with Cytochrome c	Valeria Ugone, Italy
16:30	**Break**	
	Moderator: Ignacio Leon, *Universidad Nacional de La Plata, Argentina*	
16:45	**Plenary Presentation** **Vanadium-based compounds as prospective drugs against parasitic diseases: design, metallomics and mechanism of action** Dinorah Gambino, Universidad de la República de Uruguay, Uruguay	
	SESSION 3: ORAL PRESENTATIONS	
17:20	Vanadium in Polyoxometalate Chemistry: From Assembly to Molecule-based Materials.	Charalampos Miras, University of Glasgow, Scotland
17:40	Oxoidovanadium(V) Complexes as Chromogenic Sensors of Hazardous Species	Pabitra Chatterjee, India
18:00	V(IV) Complexes as Tiny Magnetic Vessels	Joseph Zadrozny, Colorado State University, USA
18:20	**Break**	
18:35	Solution- and gas-phase behavior of decavanadate: implications for mass spectrometric analysis of redox-active polyoxometalates	Daniel Favre, USA
18:50	Charging a vanadium redox battery with a photo(catalytic) fuel cel	Tatiana Santos Andrade, Brazil
19:05	Binding to proteins and biological activity of phenanthroline-containing vanadium complexes	João Pessoa, Portugal
19:20	Key scientific issues for assessing the health effects of vanadium ingestion	Erin Yost, USA

19:55 - 21:55	SESSION 2: POSTER PRESENTATIONS	
	Phenanthroline complexation enhances the cytotoxic activity of the VOchrysin system	Agustín Actis Dato, Argentia
	Solution Characterization of V(V) Citrate Complexes	Beth Trent-Ringler, USA
	Interactions of oxidovanadates with proteins	Craig McLauchlan, USA
	Heterobimetallic potassium-dioxovanadium(V) carbo- and thiocarbohydrazonebased coordination networks	Diana Dragancea, Republic of Moldova
	PtIV- or MoVI-substituted decavanadates function as indirect activators of a G protein-coupled receptor	Duaa Althumairy, USA
	Synthesis and Characterization of two Oxidovanadium Compounds and in vitro Cell Uptake of a Fluorescent Glucose Analog	Gabriel Baptistella, Brazil
	Exploring the chemical changes suffered by a promising series of hydrophobic oxidovanadium(V) complexes active against Trypanosoma cruzi	Gonzalo Scalese, Uruguay
	New hydrophobic and stable non-innocent vanadium(V) compounds	Heide Murakami, USA
	Application of a Novel Reagent for a Green Cloud Point Extraction-Spectrophotometric Determination of Vanadium	Kiril Gavazov, Bulgaria
	Is a non-innocent oxidovanadium(V) Schiff base complex acutely toxic?	Eduardo Carvalho Lira, Brazil
	An insulin-enhancing oxidovanadium(IV)complex containing a S2O2 donor ligand: Synthesis, characterization, and in vivo evaluation of antidiabetic and hypolipidemic properties	Lidiane M. A. de Lima, USA
	Catalysis with oxidovanadium(V) complexes supported on carbon materials	M. Fátima C. Guedes da Silva, Portugal
	Vanadium inhalation and sugar-sweetened beverages promoters of liver damage.	Maria Eugenia Cervantes-Valencia, Mexico
	Sex differences in the response of pulmonary Club cells to subacute vanadium inhalation. Study in a mouse model	Nelly Lopez Valdez, Mexico
	Tris (2-Pyridylmethylamine)V(O)2 complexes as counter ions of diprotonated decavanadate anion: Potential antineoplastic activity.	Nidia D. Corona-Motolinia, Mexico
	Cloud Point Extraction-Spectrophotometric Determination of Vanadium with 4-(2-Thiazolylazo)resorcinol and Hydrogen Peroxide	Nikolina Milcheva, Bulgaria
	Synthesis, Crystal Structure, EPR, and DFT Studies of an Unusually Distorted Vanadium(II) Complex	Peter Bonitatibus, USA
	Synthesis, characterization, dft studies, and bromoperoxidase activity of unsymmetrical oxidovanadium(IV/V) binuclear complex	Rubia Camila Ronqui Bottini, Brazil
	Varied Growth effects of Schiff Base Vanadium-Catechol Complexes on Mycobacterium smegmatis In Vitro	Zeyad Arhouma, USA

Friday, 5th of November, 2021

	Moderator: Dinorah Gambino, *Universidad de la República de Uruguay, Uruguay*	
14:00	**Plenary Presentation** **Vanadium Aminotriphenolates for Sustainable Catalysis** Giulia Licini, Department of Chemical Sciences and CIRCC – Padova	
14:35	**Keynote Presentation** **Biologically relevant vanadium complexes.** **Structure, reactivity and mechanisms of action** Isabel Correia , Instituto Superior Técnico, ULisboa, Portugal	
15:00	**Break**	
	SESSION 4: Oral Presentations	
	Title	**Presenter**
15:15	Vanadium and bone cancer treatment: In silico and in vitro analysis of FAK/MMP signaling axis inhibition by VO-clioquinol on 2D and 3D human osteosarcoma cancer models	Ignacio Leon, Universidad Nacional de La Plata, Argentina
15:35	Stability in solution and chemoprotection by mixed-valence polyoxovanadates in E. coli cultures	Giovana Gioppo Nunes, Universidade Federal do Paraná, Brazil
15:55	Exchangeable Vanadium Coordination Complexes on Graphene Quantum Dots: Novel Paradigm for Developing Specific inhibitors of Protein Tyrosine Phosphatases	Xiaoda Yang, Peking University, Beijing
16:15	Integrated instrumental/computational methods to characterize the binding to proteins and biospeciation of potential vanadium drugs	Eugenio Garribba, Università di Sassari, Italy
16:35	Polyoxovanadates biological activities: the present comes from the future!	Manuel Aureliano, Universidade do Algarve, Portugal
16:55	**Break**	
	Moderator: Craig McLauchlan, *Department of Chemistry, Illinois State University, USA*	
17:10	Variable Valence Non-oxido and Oxido-vanadium Systems: Exploring their Interconversion in Solution, and Biological Activity	Rupam Dinda, India
17:25	Vanadium (V) Hydroquinonate Complexes: Synthesis and Biological Solution Evaluation	Manos Vlasiou, Cyprus
17:40	Catechol-V cross-linking enhances mechanics of adhesive fibers from mussels	Matthew Harrington, Canada
17:55	Relationship between structure and cytotoxicity of pyridoxal-derived hydrazone compounds and their vanadium complexes	Fernando Avecilla, Spain
18:10	Implications of High Blood Vanadium Levels in Control Animals of the NTP Carcinogenicity Studies on Vanadium Pentoxide	David J. White, USA
18:25	Novel heteroleptic oxidovanadium(V) complexes active against infective and non-infective stages of Trypanosoma cruzi	Gonzalo Scalese, Uruguay
18:40	Non-innocent vanadium imidazole-based Schiff base complexes with anti-cancer properties: synthesis and characterization	Kateryna Kostenkova, USA
18:55	Isomers and Redox Chemistry of Non-Innocent Vanadium Schiff Base Catecholates	Andrew Bates, USA
19:10	**Vanadis Award - Closing Remarks**	