



# **2018 PhD Symposium**

November 8th 2018, Comwell Borupgaard

# **Program**

8:30	Registration and coffee with bread at Comwell Borupgaard
9:00	Welcome by Head of Department, Erling H. Stenby
9:15	Before we start, Farnoosh Goodarzi, PhD ChemClub
Session 1	[Chair: Mathias Thor Nielsen]
9:20 - 9:40	Niklas Rosendal Bennedsen "Study of reaction kinetics for $\alpha$ -alkylation using a palladium heterogeneous catalyst"
9:40 - 10.00	Vanessa Baj "Development of Receptors for Aqueous Carbohydrate Recognition"
10:00 - 10:20	Fei Shen "Freestanding and flexible graphene paper supported enzymatic biofuel cell"
10:20 - 10:40	Marta López Vidal "Development of quantum chemical methods to model X-ray absorption
	spectroscopy"
10:40 - 11:00	spectroscopy"  Coffee Break
10:40 - 11:00 Session 2	
	Coffee Break  [Chair: Christin Pohl]  Wilfredo Colón  Professor and Head of Department Dept. of Chemistry and Chemical Biology, Rensselaer Polytechnic Institute  "Development of Methods for Investigating Hyperstable Proteins: Implications
Session 2 11:00 - 11:30	Coffee Break  [Chair: Christin Pohl]  Wilfredo Colón Professor and Head of Department Dept. of Chemistry and Chemical Biology, Rensselaer Polytechnic Institute  "Development of Methods for Investigating Hyperstable Proteins: Implications for Biotechnology"
Session 2	Coffee Break  [Chair: Christin Pohl]  Wilfredo Colón  Professor and Head of Department Dept. of Chemistry and Chemical Biology, Rensselaer Polytechnic Institute  "Development of Methods for Investigating Hyperstable Proteins: Implications
Session 2 11:00 - 11:30	Coffee Break  [Chair: Christin Pohl]  Wilfredo Colón Professor and Head of Department Dept. of Chemistry and Chemical Biology, Rensselaer Polytechnic Institute  "Development of Methods for Investigating Hyperstable Proteins: Implications for Biotechnology"  Fabrizio Monda

Session 3	[Chair: Alexandre Paolo Voute]
13:10 - 13:40	Jacob T. Shelley Professor Dept. of Chemistry and Chemical Biology, Rensselaer Polytechnic Institute
	"Ambient Desorption/Ionization, Small Mass Spectrometers, and the Future of Analytical Chemistry"
13:40 - 14:00	Xianyi Cao "Flexible solid-state supercapacitors based on tussock-like metal oxide nanowire arrays"
14:00 - 14:20	Laura Voigt "The exfoliation of novel 2D metal-organic frameworks exhibiting in-plane conductivity and ferrimagnetism"
14:20 - 14:40	Maria Taskova "Fluorescent oligonucleotides with bis (prop-2-yn-1-yloxy) butane-1,3-diol scaffold allow for rapid detection of disease associated nucleic acids"
14:40 - 15:20	Coffee Break Photo-shoot and Coffee Break
Session 4	[Chair: Alina Kulakova]
15:20 - 15:40	<b>Zhiyong Zheng</b> "Electrocatalytic oxidation of $K_4[Fe(CN)_6]$ by metal-reducing bacterium Shewanella oneidensis MR-1"
15:40 - 16:00	Samuel Gilbert Elliot "Tin-catalysed conversion of carbohydrates to $\alpha$ -hydroxy esters"
16:00 - 16:20	Sujata Mahapatra "Interaction studies of monoclonal antibodies at high concentrations"
Poster Session	
16:20 - 18:00	Poster session with drinks
	16:20-16:50 Meet the author (odd numbered posters) 16:50-17:20 Meet the author (even numbered posters) 17:20-18:00 Free discussion
Dinner	

18:30 Conference dinner

Announcement of the winner of the poster prize Announcement of the winner of the best oral prize

Announcement of the winner of most correct answers in the oral quiz

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# **Titles poster session**

## 1. Alexandre Paolo Voute

"Detection and control of bimolecular reactions from preformed weakly bound clusters"

#### 2. Alina Kulakova

"Stability studies on a fusion protein"

#### Bo Jessen

"Catalytic conversion of Methyl Vinyl Glycolate into new bio-based building blocks"

#### 4. Christin Pohl

"Structural characterization and stability studies of single domain protein drugs"

## 5. Daniel Hansen

"Chemical 3D mapping of polymer composite fillers"

# 6. David Benjamin Christensen

"Synthesis of mesoporous carbon materials as supports in heterogeneous catalysis"

# 7. Dmytro Mihrin

"Hydrogen bond librational motion of water-solute complexes: A far-infrared probe for the micro-solvation of organic molecules"

# 8. Fabrizio Bottaro

"Cobalt-Catalyzed Acceptorless Alcohol Dehydrogenation"

#### 9. Farnoosh Goodarzi

"Synthesis of metal nanoparticles encapsulated in zeolite frameworks for selective catalysis"

# 10. Fatemeh Keshavarzi

"Effect of film former compounds on sunscreen film formation"

# 11. Giorgia Masciotta

"Template-directed enzymatic synthesis of alpha-glucans"

# 12. Huili Cao

"Shape-controlled synthesis of Zinc Vanadate and its supercapacitor performance"

#### 13. Irene Tosi

"The Process for the Conversion of Sugars Using Lewis Acidic Zeolites"

# 14. Jakob Maximilian Marinkovic

"Hydroformylation process intensification with a new reactor-separation concept"

#### 15. Jing Tang

"Graphene- sulfite oxidase bioanodes for enzymatic biofuel cells"

# 16. Johannes Eiler

"Structural assessment of natural filler/polymer composites utilising their water diffusion coefficient"

# 17. Junhao Huang

"Fabrication of ultrathin film based on electrostatic interactions and covalent bonding"

# 18. Koosha Ehtiati

"Synthesis and Characterization of Poly(acrylic acid) Brushes: The Effect of Molecular Weight and Grafting Density on Brush Properties"

# 19. Line Abildgaard Ryberg

"Albumin's complex formation with acylated insulin analogues studied with small-angle X-ray scattering and molecular dynamics"

## 20. Mathias Thor Nielsen

"Can polynuclear metal clusters behave as "extended" organometallic complexes"

### 21. Mike Steffen Bernhard Jørgensen

"Acceptorless alcohol hydrogenation and metalloorganic chemistry"

## 22. Mingli Liang

"Photodetector based on MAPbBr<sub>3</sub>/N-rGO hybrids showing an enhanced performance"

#### 23. Mostafa Abedi

"Excited-State Solvation Structure of Transition Metal Complexes from Molecular Dynamics Simulations"

# 24. Natalia Teresa Skawinska

"Allosteric regulation of human tryptophan hydroxylase isoform 2"

## 25. Nikolaj Sten Andersen

"Synthesis of diverse and three-dimensional fluorinated fragments for fragment-based drug discovery"

# 26. Qinying Pan

"Designing Covalent Organic Frameworks for Solar Energy Conversion"

## 27. Rouzana Pulikkal Thumbayil

"Highly dispersed heterogeneous nanocatalysts for the synthesis of methyl isobutyl ketone"

## 28. Simone Vestermann Samuelsen

"Manganese-catalyzed dehydrogenation of alcohols"

## 29. Sofie Nitsche Gottfredsen

"Bulk and trace elements" in produced water from the Danish North Sea: The chemical analysis and the trends in the retrieved data"

# 30. Stefano Tagliaferri

"Gas Injection in Valdemar Field"

# 31. Tao Jiang

"Layer-by-layer assembly of PPEGMEMA/alginate multilayers"

## 32. Ulf Molich

"X-ray Absorption Spectroscopy Studies of Copper and Zinc in Amyloid- $\beta$  Related to Alzheimer's Disease"

## 33. Wei Huang

"Microwave-assisted morphology evolution of iron doped birnessite hierarchical nanosheets"