

**New York's American Chemical Society – Student Activities Committee
67th Annual Undergraduate Research Symposium
Queens College - CUNY
Flushing, NY
Saturday, May 4, 2019**

- 8:00 **Registration and Continental Breakfast** **Dining Hall, Queens Hall**
- 9:00 **Welcoming Remarks** **Auditorium (Room 120), Queens Hall**
- Dr. Paul Sideris Co-Chair, NY ACS, Student Activities Committee
Dr. Avrom Caplan Associate University Dean of Research – CUNY
Dr. Justyna Widera-Kalinowska 2019 Chair, NY ACS
Dr. Susan Rotenberg Interim Dean of Math and Sciences, CUNY Queens College
Dr. Seogjoo Jang Chair, Department of Chemistry, CUNY Queens College
- 9:20 **Keynote Address** **Auditorium (Room 120), Queens Hall**
- Dr. James G. Anderson** **Harvard University**

Coupling Free Radical Catalysis, Climate Change, and Human Health

- 10:20 **Instructions for the day**
Dr. Paul Sideris Co-Chair, NY ACS, Student Activities Committee
- 10:30 **Group Photo** **Auditorium (Room 120), Queens Hall**
- 11:00 **Presented Papers** **Queens Hall**
- Analytical Chemistry 182
Biochemistry 300E, 315 C, 315 H, 320, 335 B
Chemical Education 182
Environmental/Green Chemistry 174,179,181
Inorganic Chemistry 245B
Nano and Surface Chemistry 245G, 250, 260
Organic Chemistry 335E, 335G, 340
Physical Chemistry 265 C, 265 H
Polymer Chemistry 270 A
- 12:40 **Luncheon / Award Reception** **Room 130, Queens Hall**
- 1:25 **Presentation of Certificates**
Dr. Naphtali O'Connor Co-Chair, NY ACS Student Activities Committee
- 1:45 **Sponsor Exhibit** **Room 130, Queens Hall**

SESSION MODERATORS

| Moderator | Representing | Room | Section |
|---|--|--------------|--|
| Victoria Pirulli Saleh Jaser | Queens College Queensborough CC | 182 182 | Analytical Chemistry/Chem Ed. Analytical Chemistry/Chem Ed. |
| Mehreen Mahbub Abdullah Allaoa | Queens College NYC College of Tech. | 300E 300E | Biological Chemistry I Biological Chemistry I |
| Cynthia Kim Amirabbas Maghsoudi | Queens College Queensborough CC | 315C 315C | Biological Chemistry II Biological Chemistry II |
| Inshika Ahmed Lauren Parrinello | Queens College Adelphi University | 315H 315H | Biological Chemistry III Biological Chemistry III |
| Dianne Hernandez Param Shukla | Queens College NYIT | 320 320 | Biological Chemistry IV Biological Chemistry IV |
| Sophia How | Queens College | 335B | Biological Chemistry V |
| Rahul Gopalakrishnan Paul J. Venturi | Queens College Adelphi University | 174 174 | Green Chemistry I Green Chemistry I |
| Sayashmini Madhow Feruza Turobova | Queens College Queensborough CC | 179 179 | Green Chemistry II Green Chemistry II |
| Anita Singh Krupa G. Patel | Queens College Queensborough CC | 181 181 | Green Chemistry III Green Chemistry III |
| Manal Alrashidi Nashelle Bisono | Queens College Queensborough CC | 245B 245B | Inorganic Chemistry Inorganic Chemistry |
| Muhammad Hamza Hye Jin In | Queens College Adelphi University | 245G 245G | Nano/Surface Chemistry I Nano/Surface Chemistry I |
| Flora Afroza Stephanie Landazuri | Queens College Queensborough CC | 250 250 | Nano/Surface Chemistry II Nano/Surface Chemistry II |
| Ashif Iqbal Bhuiyan Evelyn Perez | Queens College Queensborough CC | 260 260 | Nano/Surface Chemistry III Nano/Surface Chemistry III |
| Syeda Rishty Tabassum Mary Tom | Queens College NYIT | 335E 335E | Organic Chemistry I Organic Chemistry I |
| Chloe Sweeney Amandeep Kaur | Queens College Adelphi University | 335G 335G | Organic Chemistry II Organic Chemistry II |
| Shuai Ma Heng Zhang | Queens College Queensborough CC | 340 340 | Organic Chemistry III Organic Chemistry III |
| William H. Hersh | Queens College | 270A | Physical Chemistry |
| Towheed Mahmud | Queens College | 265C | Polymer Chemistry I |
| Pamela Tabaquin Princess Tabaquin | Queensborough CC Queensborough CC | 265H 265H | Polymer Chemistry II Polymer Chemistry II |

ANALYTICAL CHEMISTRY/CHEMICAL EDUCATION

Room: 182

Moderators: Victoria Pirulli/Saleh Jaser

- 11:00 DETERMINATION OF THE TOTAL AMOUNT OF ANTIOXIDANTS IN JUICES USING THE FOLIN CIOCALTEAU MICROSPECTROPHOTOMETRIC METHOD.** Rita Wang,¹ Paris Svoronos¹ and Paul Marchese² ¹Department of Chemistry Queensborough Community College, Bayside NY, 11364 ²Department of Physics, Queensborough Community College, Bayside NY, 11364
- 11:15 SYNTHESIS AND CHARACTERIZATION OF CdSe AND CdS THIN FILMS DEPOSITED ON PLATINUM ELECTRODES.** Samantha Wynter and Justyna Wildera Department of Chemistry, Adelphi University, Garden City, NY 11530
- 11:30 MODIFICATIONS TO GENERAL CHEMISTRY RECITATION THROUGH AN HSI-STEM GRANT – A SECOND YEAR UPDATE.** Victoria Pirulli and Angie Calle Department of Chemistry and Biochemistry, Queens College - CUNY, Queens, NY 11367
- 11:45 INITIATING INQUIRY-BASED FIRST SEMESTER CHEMISTRY LABORATORY.** Angie Calle, Victoria Pirulli, Stephen Farenga, Salvatore Garofalo and Gopal Subramaniam Department of Chemistry and Biochemistry & Secondary Education and Youth Services, Queens College, Queens, NY 11367
- 12:00 COMPARING PEER ASSISTANCE IN GENERAL CHEMISTRY AT A 2 AND 4-YEAR COLLEGE.** Jiayi Xue,¹ Marcus Jackson,¹ Angie Calle,¹ Towheed Mahmud,¹ Peter Novick,² Jennifer Valad,¹ Stephen Farenga¹ and Gopal Subramaniam¹ ¹Department of Chemistry and Biochemistry & Secondary Education and Youth Services, Queens College, Queens, NY 11367 ²Biology Department, Queensborough Community College, NY 11364
- 12:15 EFFICACY OF ASSIGNMENT SCAFFOLDING IN GENERAL CHEMISTRY I LABORATORY AT QUEENSBOROUGH COMMUNITY COLLEGE.** Zachary Avrutis, Marlon Moreno and Paul J. Sideris Department of Chemistry, CUNY Queensborough Community College, Bayside NY 11364

BIOLOGICAL CHEMISTRY I

Room: 300E

Moderator: Mehreen Mahbub/Abdullah Allaoa

11:00 MIGRATION OF OSTEOSARCOMA CELLS THROUGH ETCHED TRANSWELL MEMBRANES. Emily J. Chen,¹ Kalia Pannell,² Charlotte R. Pfeifer,² Lawrence J. Dooling² and Dennis E. Discher² ¹New York University ²Molecular & Cell Biophysics Lab, University of Pennsylvania, Philadelphia, PA 19104 USA

11:15 HEME PROTEIN ACTIVITY AND STABILITY IN THE CATALYTIC CYCLE OF H₂O₂ DEPLETION. Ike Ariza, Naomi Shohet, Hikmah Abodunrin, Dylan Xue, Jay Woo, Jorge Ramos and Uri Samuni Department of Chemistry and Biochemistry, Queens College, Flushing NY 11367

11:30 EFFECT OF HEAVY AND TRANSITION METALS ON FLAVO-DITHIOL OXIDOREDUCTASES. John Caperella, Eric Chang and Irina Gazaryan, Department of Chemistry & Physical Sciences, Dyson College of Arts and Sciences, Pace University, Pleasantville, NY 10570

11:45 CHARACTERIZATION OF SELF-ASSEMBLING PROTEIN LIPID COMPLEX FOR siRNA BASED GENE THERAPY. Julia Monkovic,¹ Joseph Thomas,² Kamia Punia, Ph.D.,¹ Priya Katyal, Ph.D.,¹ Jin K. Montclare, Ph.D.^{1,3,4} ¹Department of Chemical and Biomolecular Engineering, NYU Tandon School of Engineering, Brooklyn, NY 11201 ²Department of Biomedical Engineering, SUNY Downstate Medical Center, Brooklyn, NY 11203 ³Department of Chemistry, New York University, New York, NY 10003 ⁴Department of Radiology, New York University Langone Health, New York, NY 10016

12:00 PROBING WATER-OSMOLYTE INTERACTIONS TO FURTHER UNDERSTAND HOW OSMOLYTE WOULD STABILIZE THE PROTEINS. Khushpreet Kaur, Debopreeti Mukherjee and Feng Gai Department of Chemistry, University of Pennsylvania, Philadelphia, PA, 19104

BIOLOGICAL CHEMISTRY II

Room: 315C

Moderators: Cynthia Kim/Amirabbas Maghsoudi

11:00 MAPPING PROTEIN-CHROMATIN INTERACTIONS OF YEAST CELLS IN VIVO Cesar Cardenas and Bryan J. Wilkins Department of Chemistry and Biochemistry, Manhattan College, Riverdale, NY 11439

11:15 INVESTIGATING THE CHROMATIN REMODELER PROTEIN, INO80, AND ITS CONTACTS TO THE NUCLEOSOMAL SURFACE. José J. Feliciano and Bryan Wilkins Department of Chemistry, Manhattan College, Bronx, NY 10471

11:30 INVESTIGATING THE ROLE OF THE MED PROTEIN IN BIOFILM FORMATION. Juan Lara-Garcia and Sarah Wacker Department of Chemistry and Biochemistry, Manhattan College, 4513 Manhattan College Parkway, Riverdale, NY 10471

11:45 A VISUAL SCREEN FOR THE CONTENTS OF THE HUNTINGTIN INCLUSION BODY IN *S. CEREVISIAE*. Nigel Sampson and Lesley Emtage Department of Biology, York College, City University of New York, Jamaica, NY 11451

12:00 EXPLORING INTERACTIONS BETWEEN CHROMATIN AND ESSENTIAL CHROMATIN REMODELING COMPLEX IN VIVO. Shereen Chaudhry and Bryan J. Wilkins, Department of Chemistry and Biochemistry, Manhattan College, 4513 Manhattan College Pkwy., Bronx, NY 10471

BIOLOGICAL CHEMISTRY III

Room: 315H

Moderator: Inshika Ahmed/Lauren Parrinello

11:00 PHOTOACTIVATABLE SMALL MOLECULE BIOSENSORS OF NEK2 KINASE FOR FUNCTIONAL BIOLOGY. Aadam Gafur, Ashif Bhuiyan and Sanjai K. Pathak Department of Chemistry and Biochemistry, Queens College of the City University of New York, Queens, NY 11367

11:15 SYNTHESIS AND CHARACTERIZATION OF ACTIVITY-BASED CELL INHIBITORY PROBE OF CYSTEINE CATHEPSIN B. Anna Alicent Dickson, Ashif I. Bhuiyan, Dibyendu Dana, Karl R. Fath and Sanjai K. Pathak Department of Chemistry and Biochemistry, Queen College of The City University of New York, Queens, NY, 11367

11:30 THE EFFECTS OF L-FABP ON MAGL ACTIVITY IN VITRO. Zahra Hassani, Francine Katz and Ruth E. Stark Department of Chemistry and Biochemistry, The City College of New York, City University of New York and CUNY Institute of Macromolecular Assemblies, New York, NY 10031

11:45 DISCOVERING THE MECHANISM OF ACTIVATION OF A HISTIDINE KINASE AND ITS INFLUENCE ON BIOFILM FORMATION. Khaitlyn Figueroa, Nadeen Moawiah and Dr. Sarah Wacker, Department of Chemistry and Biochemistry. Manhattan College, Bronx, NY, 10471

12:00 DEVELOPMENT OF A METHOD TO PROBE FOR PROTEINS THAT ASSOCIATE WITH HUNTINGTIN AGGREGATES. Nikta Radfar, Ayesha Farhad, Kujtesa Berisha and Lesley Emtage Biology Department, York College, City University of New York, Queens, NY 11451

BIOLOGICAL CHEMISTRY IV

Room: 320

Moderator: Dianne Hernandez/Param Shukla

11:00 ANTIBACTERIAL ACTIVITY AGAINST *ERWINIA CAROTOVORA*: SYNERGISM INTERACTIONS BETWEEN DIFFERENT PHYTOCHEMICAL SUBSTANCES PRESENT IN POTATO WOUND TISSUES. Mathiu Perez Rodriguez, Keyvan Dastmalchi and Ruth E. Stark. Department of Chemistry and Biochemistry, The City College of New York, City University of New York and CUNY Institute for Macromolecular Assemblies, New York, NY 10031

11:15 INTERACTION OF DIAZABICYCLOOCTANE β -LACTAMASE INHIBITORS WITH CLASS C β -LACTAMASES. Hardler Servius and Scott T. Lefurgy Department of Chemistry, Hofstra University, Hempstead, NY 11549

11:30 SYNTHESIS OF SELECTIVE SMALL MOLECULE INHIBITORY PROBES OF HUMAN CATHEPSIN L. Guoshen Li, Ashif I. Bhuiyan, Dibyendu Dana, Karl R. Fath and Sanjai K. Pathak Department of Chemistry and Biochemistry, Queen College of The City University of New York, Queens, NY, 11367

11:45 INTERACTION OF MULTI-TARGET COMPOUNDS WITH HUMAN SERUM ALBUMIN. Gabriel Ortiz, Alberto Martinez Ph. D, Department of Chemistry, New York City College of Technology, 300 Jay St, Brooklyn, NY 11201

12:00 SYNTHESIS AND BIOLOGIC EVALUATION OF NAPHTHYRIDINE-BASED PHOSPHODIESTERASE 5 INHIBITORS FOR THE TREATMENT OF ALZHEMER'S DISEASE. Chuxuan Wang and Jole Fiorito Department of Life Sciences, New York Institute of Technology, Old Westbury NY 11568

BIOLOGICAL CHEMISTRY V

Room: 335B

Moderator: Sophia How

11:00 DNA INTERSTRAND CROSSLINK REPAIR IN MPH1-DEFICIENT YEAST. Afeefah Siddique, Zawah Zabin and Wilma Saffran Department of Chemistry and Biochemistry, Queens College, City University of New York, Queens, NY 11367

11:15 ENHANCING ENZYMATIC FUEL CELLS WITH NANOTECHNOLOGY. Seth Serrano, Bryan Wilkins and Alexander Santulli Department of Chemistry and Biochemistry, Manhattan College, 4513 Manhattan College Pkwy, Bronx, NY 10471

11:30 DEVELOPING A YIELD OPTIMIZATION METHOD FOR COLLAGEN-MIMETIC PEPTIDE. Neha Rattu,¹ Jui S. Chaugule² and Yujia Xu³ ¹Biology Department, Hunter College - CUNY, New York, NY 10065 ²CUNY Graduate Center, New York, NY 10016 ³Chemistry Department, Hunter College - CUNY, New York, NY 10065

11:45 SILICA GEL-BOUND DNA IS AN ABSORBANT OF POLYCYCLIC AROMATIC HYDROCARBONS (PAH). Sumaiya Sabrina and John Regan Department of Biochemistry/Chemistry, Manhattan College, Bronx, NY 10471

12:00 FOR THE REMOVAL OF DEPOSITED URANIUM FROM HUMAN TEETH. Artem Duda, Jafar Ali, Charles Drain, Spiro Alexandratos and Ali Younes Department of Chemistry, Hunter College, 695 Park Ave, New York, NY 10065

GREEN CHEMISTRY I

Room: 174

Moderator: Rahul Gopalakrishnan/Paul J. Venturi

11:00 EXPLORING THE EFFECT OF FLUORINATED SIDE CHAINS IN A FAMILY OF SULFONAMIDE IONIC LIQUIDS. Jasodra D. Ramdihal,¹ Chanele Rodriguez,¹ Kristina Papacostas,¹ Eddie Fernandez,¹ Edward Castner,² James Wishart³ and Sharon Lall-Ramnarine¹. ¹Department of Chemistry, Queensborough Community College of CUNY, Bayside, NY 11364. ²Department of Chemistry and Chemical Biology, Rutgers University, Piscataway, NJ, 08854 ³Chemistry Division, Brookhaven National Laboratory, Upton, NY 11973

11:15 MIXED SINGLE-WALLED CARBON NANOTUBE-IONIC LIQUID ELECTROLYTES FOR SOLAR CELLS. Rawlric A. Sumner,^{1,2} Tirandai Hemraj-Benny,² Sharon I. Lall-Ramnarine² and James F. Wishart³ ¹Department of Chemistry and Biochemistry, Queens College, Flushing, NY, 11367. ²Department of Chemistry, Queensborough Community College, Bayside, NY, 11364 ³Chemistry Division, Brookhaven National Laboratory, Upton, NY, 11973

11:30 THERMOELECTRIC EFFECT WITH A SERIES OF IONIC LIQUIDS: MACROSCOPIC NONLINEARITIES AND REDUCED PERFORMANCE WITH HIGHER THERMAL EXPANSION IN REDUCED CONVECTION GEOMETRY. Marcus Jackson,¹ Vera Zarubin,¹ Robert Engel¹ and Luat Vuong² ¹Department of Chemistry, Queens College, City University of New York, Flushing, NY 11413 ²Department of Engineering, University of California at Riverside, 900 University Ave, Riverside, CA 92521

11:45 PAH MEASUREMENT IN SMALL SAMPLES USING A SENSITIVE FLUORESCENT DETECTOR COUPLED WITH AN UHPLC. Juan Jaramillo,^{1,2} Steven Chillrud,² James Ross,² Masha Pitiranggon,² Qiang Yang,² Jeffrey Blair,³ Matthew Perzanowski,⁴ Beizhan Yan² ¹Hunter College, New York, NY, USA 10065 ²Lamont-Doherty Earth Observatory, Palisades, NY, USA 10964 ³AethLabs, San Francisco, CA, USA 94110, ⁴Columbia University Mailman School of Public Health, New York, NY, USA 10032

GREEN CHEMISTRY II

Room: 179

Moderator: Sayashmini Madhow/Feruza Turobova

11:00 REMOVAL OF POLYCYCLIC AROMATIC HYDROCARBONS AND ESTRADIOL FROM WASTE WATER USING CHEMICALLY TREATED SILICA GELS AND AMBERLITE ION EXCHANGE RESINS. Amanda Zimnoch and Jianwei Fan Department of Chemistry and Biochemistry, Manhattan College, Riverdale, NY 10471

11:15 REMOVAL OF LIPOPHILIC AND HYDROPHILIC POLLUTANTS FROM WATER WITH A NEW VERSATILE CHEMICALLY MODIFIED SILICA GEL-BASED ABSORBENT. Hannah Mabey and John Regan Department of Chemistry & Biochemistry, Manhattan College, Riverdale, NY 10471

11:30 REDUCING HEXAVALENT CHROMIUM TO TRIVALENT CHROMIUM WITH ZERO CHEMICAL FOOTPRINT: BOROHYDRIDE EXCHANGE RESIN WITH A POLYMER SUPPORTED BUFFER IN WATER Georgia Stinchfield and John Regan. Department of Chemistry & Biochemistry, Manhattan College, Riverdale, NY 10471

11:45 USE OF MAGNETIC ALGINATE MICROSPHERES FOR THE UPTAKE OF ARTIFICIAL DYES FROM WASTEWATER Afaf Ulay, Abel Navarro Science Department, Borough of Manhattan Community College, New York, NY 10007

12:00 PREPARATION OF CARBON NANOMATERIALS FROM DAIRY WASTE. Kizzy Nelson, Itzel Ramirez and Ji Kim, Guttman Community College-CUNY, New York, NY 10018

GREEN CHEMISTRY III

Room: 181

Moderator: Anita Singh/Krupa G. Patel

11:00 ELIMINATION OF SULFA ANTIBIOTICS BY SEAWEED FROM CONTAMINATED SOLUTIONS. Mohamadia Nassar and Abel Navarro Science Department, Borough of Manhattan Community College, New York, NY 10007

11:15 BIOSORPTION OF DIVALENT COBALT IONS BY BIOWASTES AND THEIR HYBRID ADSORBENTS. Enyani Roytvayn and Abel E. Navarro
Science Department, Borough of Manhattan Community College 199
Chambers St, New York, NY 10007

11:30 PHOTODEGRADATION OF MODEL POLLUTANTS WITH NITROGEN DOPED TITANIUM DIOXIDE. Educe Edouarzin,¹ Anhay Hernandez,² Laura Kuhlman,² Mihaela Jitianu,² and Naphtali O'Connor¹
¹Department of Chemistry, Lehman College, City University of New York, Bronx, NY 10468 ²Department of Chemistry, William Paterson University, Wayne, NJ 07470

11:45 WO₃/TiO₂ HYBRIDS AND THEIR APPLICATIONS FOR THE PHOTOCATALYTIC DEGRADATION OF P-SUBSTITUTED PHENOLS. Kelly Zhu,¹ Marisa McLeod,¹ Tomasz Lecki,² Justyna Widera-Kalinowska¹ and Magdalena Skompska² ¹Department of Chemistry, Adelphi University, Garden City, NY 11355¹ ²Faculty of Chemistry, University of Warsaw, Warsaw, Poland 02-093

INORGANIC CHEMISTRY

Room: 245B

Moderator: Manal Alrashidi/Nashelle Bisono

11:00 *IN VITRO* AND *IN VIVO* EVALUATION OF A WATER-SOLUBLE IMINOPHOSPHORANE COMPOUND. Maria Contel,¹⁻⁵ Malgorzata Frik,^{1,4} Benelita T. Elie,^{1,2} Arefa Yeasmin,¹ and Mike A. Cornejo,¹ ¹Department of Chemistry, Brooklyn College, The City University of New York, Brooklyn, NY, 11210, US. ²Biology, ³Biochemistry and ⁴Chemistry PhD Programs, The Graduate Center, The City University of New York, 365 Fifth Avenue, New York, NY, 10016, US. ⁵Cancer Biology Program, University of Hawaii Cancer Center, University of Hawaii at Manoa, Honolulu, USA

11:15 INTRACELLULAR LOCATIZATION OF A POTENTIAL ANTICANCER CHEMOTHERAPEUTIC: INCORPORATION OF A BODIPY-BASED FLUORESCENT PROBE ONTO THE SCAFFOLD OF A RUTHENIUM(II)-IMINOPHOSPHORANE COMPLEX. Kirill Miachin¹, Patricia Appelt,⁴ Anton Khrystenko¹, Virginia del Solar,¹ and Maria Contel¹⁻³ ¹Department of Chemistry, Brooklyn College, The City University of New York, Brooklyn, NY, 11210, US. Chemistry² and Biology³ PhD Programs, The Graduate Center, The City University of New York, 365 Fifth Avenue, New York, NY, 10016, US. ⁴Departamento de Quimica, Universidade Federal do Parana (UFPR), Curitiba, PR, Brazil

- 11:30 SYNTHESIS OF NOVEL PHOSPHINE LIGANDS WITH AN IMIDAZOLIUM TETHER FOR USE IN BIPHASIC REACTION MEDIA.** Jonathan Farshadmand, and Richard Rosso Department of Chemistry, St. John's University, Queens, NY 11439
- 11:45 CO₂ CONVERSION BY HYDROGENATION TO VALUE-ADDED CHEMICALS OVER CeO₂ SUPPORTED IRON-BASED CATALYSTS.** Keolani Williams, and Cheng Zhang School of Liberal Arts and Sciences, Long Island University (Post), 720 Northern Blvd. Brookville, NY 11548
- 12:00 REMOVAL OF TECHNETIUM-99 FROM CONTAMINATED GROUNDWATER USING INORGANIC TITANIUM-BASED ION-EXCHANGERS.** David Nemirovsky, Charles Drain, Lynn Francesconi and Ali Younes Hunter College of the City University of New York, 695 Park Ave, New York, NY 10065
- 12:15 SURFACTANT-ASSISTED HYDROTHERMAL SYNTHESIS OF LiFePO₄ USING SODIUM DODECYLBENZENESULPHONATE.** Hui Zhu and Paul J. Sideris Department of Chemistry, CUNY Queensborough Community College, Bayside NY 11364

NANO AND SURFACE CHEMISTRY I

Room: 245G

Moderator: Muhammad Hamza/Hye Jin In

- 11:00 PHOTOCATALYTIC DEGRADATION OF HAZARDOUS WASTES USING TUNGSTEN TRIOXIDE BASED HYBRIDS.** Marisa McLeod,¹ Kelly Zhu¹, Dr. Justyna Widera-Kalinowska¹ and Dr. hab. Magdalena Skompska² Department of Chemistry, Adelphi University, 1 South Avenue, Garden City, NY 11530 USA¹ and Laboratory of Electrochemistry, Faculty of Chemistry, University of Warsaw, Pasteur Street 1, 02-093, Warsaw, Poland²
- 11:15 PHOTOELECTROCHEMICAL AND SURFACE ANALYSIS OF CDSE-POMA HYBRIDS DEPOSITED ON GOLD, PLATINUM, AND HOPG ELECTRODES.** Stephanie Dulovic,¹ Sophia Casto,¹ Justyna Widera-Kalinowska,¹ Bartosz Maranowski,² Marcin Strawski² and Marek Szklarczyk²
¹Department of Chemistry, Adelphi University, Garden City, NY 11530
²Department of Chemistry, University of Warsaw, Warsaw, Poland 02-093

11:30 COMPLEXES OF RHODANINE WITH NOBLE METALS. Sameen Zahra,¹ Yousif Saleh,¹ Moni Chauhan¹ and Bhanu Chauhan² ¹Chemistry Department, Queensborough Community College Of CUNY, Bayside, NY,11364 ²Department of Chemistry, William Patterson University, Wayne, NJ 07470

11:45 MAGNETIC NANOCOMPOSITE FOR WATER PURIFICATION. Monica Keeley and Ping Furlan Department of Chemistry, United States Merchant Marine Academy, Great Neck NY 11024

NANO AND SURFACE CHEMISTRY II

Room: 250

Moderators: Flora Afroza/Stephanie Landazuri

11:00 HYBRID GLASSES ANTICORROSIVE COATINGS FOR AZ31B MAGNESIUM ALLOY PROTECTION. Jennifer Guzman,¹ Gabriela Rodriguez,¹ Jadra Mosa,² Mario Aparicio,² Lisa C. Klein,³ Andrei Jitianu¹ ¹Department of Chemistry, Lehman College, CUNY, 250 Bedford Park Boulevard West, Bronx, New York 10468, US ²Instituto de Cerámica y Vidrio, Consejo Superior de Investigaciones Científicas (CSIC) Kelsen 5 (Campus de Cantoblanco), 28049 Madrid, Spain ³Department of Materials Science and Engineering, Rutgers University, 607 Taylor Road, Piscataway, New Jersey 08854, US

11:15 PULSE ELECTRODEPOSITION A NEW APPROACH FOR PROTECTION AGAINST CORROSION OF 304 STAINLESS STEEL James Mercado,¹ Jadra Mosa,² Mario Aparicio,² Lisa C. Klein,³ Andrei Jitianu¹ ¹Department of Chemistry, Lehman College, CUNY, 250 Bedford Park Boulevard West, Bronx, New York 10468, US ²Instituto de Cerámica y Vidrio, Consejo Superior de Investigaciones Científicas (CSIC) Kelsen 5 (Campus de Cantoblanco), 28049 Madrid, Spain ³Department of Materials Science and Engineering, Rutgers University, 607 Taylor Road, Piscataway, New Jersey 08854, US

11:30 MICROWAVE SYNTHESIS OF COMPOSITES OF POLYANILINE NANOFIBERS AND RUTHENIUM NANOPARTICLES. Harpreet Singh and David M. Sarno Chemistry Department, Queensborough Community College of CUNY, Bayside, NY 11364

11:45 MAGNETIC IRON OXIDE-SINGLE WALLED CARBON NANOTUBE CATALYSTS FOR THE DEGRADATION OF AZO DYE. Fei Li and Tirandai Hemraj-Benny Department of Chemistry, Queensborough Community College/CUNY, Bayside, NY 11364

NANO AND SURFACE CHEMISTRY III

Room: 260

Moderator: Ashif Iqbal Bhuiyan/Evelyn Perez

11:00 ELECTROLYTIC MIXTURES OF SINGLE-WALLED CARBON NANOTUBES IN IMIDAZOLIUM-BASED IONIC LIQUIDS. Katelyn Urena,¹ Rawlric Sumner,^{1,2} James F. Wishart,³ Sharon Lall-Ramnarine,¹ and Tirandai Hemraj-Benny¹ ¹Department of Chemistry, Queensborough Community College of CUNY, Bayside, NY 11364. ²Department of Chemistry & Biochemistry, Queens College of CUNY, Flushing, NY 11367. ³Chemistry Division, Brookhaven National Laboratory, Upton, NY 11973

11:15 SPIN-RICH HOLEY GRAPHENE AS AN EFFICIENT METAL-FREE AND DOPANT-FREE ELECTROCATALYST FOR OXYGEN REDUCTION REACTION. Qingdong Li, Junjie Ouyang, Huixin He. Department of Chemistry, Rutgers, the State University of New Jersey, Newark, NJ, 07102

11:30 IMPACT OF MOLECULAR LENGTH ON OLIGOCARBAZOLE SINGLE MOLECULE WIRES. Muhabbat Ahmedova,¹ Larry Zaborsky,² Jiayi Xue,¹ Marlene Fierros,² Patrick Tuttle,¹ Gina Florio² and Sujun Wei¹ ¹Department of Chemistry, CUNY Queensborough Community College, Queens NY 11364 ²Department of Chemistry & Department of Physics, St. John's University, Queens NY 11439

11:45 TRIPEPTIDE STABILIZED NANOEMULSIONS FOR CANCER THERAPY. Marium Abdou and Emilio Gallicchio Department of Chemistry, CUNY Brooklyn College, Brooklyn, NY 11210

ORGANIC CHEMISTRY I

Room: 335E

Moderators: Syeda Rishty Tabassum/Mary Tom

11:00 THE EFFECT OF 2'- AND 3'- SUBSTITUTION IN CADPR ANALOGUES: SYNTHESIS, CONFORMATIONAL ANALYSIS, AND VARIABLE TEMPERATURE NMR SPECTROSCOPY. Tanner Perez and Steven Graham Department of Chemistry, St. John's University, Queens, NY 11439

11:15 CROSS COUPLING OF AMIDES BY N-C ACTIVATION. Daniel J. Pyle, Chengwei Liu and Michal Szostak Department of Chemistry, Rutgers University, Newark, NJ 07102

11:30 DESIGN, SYNTHESIS, AND BIOLOGICAL EVALUATION OF FATTY ACID BINDING PROTEIN 5 INHIBITORS AS NOVEL THERAPEUTICS FOR CHRONIC PAIN. Atri G. Maharaj¹, Antonella Pepe¹, Monaf Awwa¹, Timothy Clement¹, Yi Sun¹, Jinwoo Kim¹, Adam K. Taouil¹, Matthew W. Elmes³, Dale D. Deutsch^{2,3}, Martin Kaczocha^{2,4}, and Iwao Ojima^{1,2}; ¹Department of Chemistry, Stony Brook University, Stony Brook, NY 11794; ²Institute of Chemical Biology and Drug Discovery, Stony Brook University, Stony Brook, NY 11794; ³Department of Biochemistry & Cell Biology, Stony Brook University, Stony Brook, NY 11794; ⁴Department of Anesthesiology, Stony Brook Medicine, Stony Brook, NY 11794

11:45 EFFECT OF ATROPISOMERISM ON THE BINDING AFFINITIES OF α -HYDROXYTROPOLONES. Rudolf G. Abdelmessih and Emilio Gallicchio Department of Chemistry, Brooklyn College, City University of New York, Brooklyn, NY 11210

12:00 SYNTHESSES OF PHENYLENEBIS(TRICHLOROACETAMIDE) DERIVATIVES BY MICROWAVE REACTOR: POSSIBLE PRECURSOR TO AROMATIC POLYUREA. Keiann Simon and Jun H. Shin, Department of Chemistry, Queensborough Community College, Bayside, NY 11364

ORGANIC CHEMISTRY II

Room: 335G

Moderators: Chloe Sweeney/Amandeep Kaur

11:00 LIQUID CHROMATOGRAPHY–MASS SPECTROMETRY AS APPLIED TO THE SYNTHESIS OF CYCLIC ADENOSINE 5'-DIPHOSPHATE RIBOSE. Chiemeka D. Uwakwe, Rachel Peters and Steven M. Graham Department of Chemistry, St. John's University, Queens, NY 11439

11:15 STRUCTURE ELUCIDATION USING ADVANCED NMR EXPERIMENTS. Rachel Peters, Inis Serrano and Steven M. Graham Department of Chemistry, St. John's University, Queens, NY 11439

11:30 BIOCATALYTICALLY DERIVED TREHALOSE-BASED MOLECULAR GELS AS CONTROLLED RELEASE DEVICE. Polina Tsupko¹, Malick Samateh^{1,2}, Sai Sateesh Sagiri¹ and George John^{1,2}
¹Department of Chemistry and Biochemistry, The City College of New York, 160 Convent Ave., New York, NY 10031 and ²PhD Program in Chemistry, The Graduate Center of the City University of New York, New York, NY 10016

11:45 GLYCOSYL CROTYLATING AGENTS FOR THE SYNTHESIS OF BIOLOGICALLY RELEVANT GLYCOLIPIDS. Marnie Kotlyar, Steven Truong and David Mootoo Department of Chemistry, CUNY Hunter College, New York, NY 10065

12:00 SPENT CHAI TEA AS A LOW-COST BIOADSORBENT OF CATIONIC DYES FROM WASTEWATERS. Tahreem Bhatti and Abel E. Navarro Department of Science, Borough of Manhattan Community College, 199 Chambers St, New York, NY 10007

ORGANIC CHEMISTRY III

Room: 340

Moderators: Shuai Ma/Heng Zhang

- 11:00 SYNTHESIS OF NOVEL ACYL HYDRAZONES AS INHIBITORS FOR FUNGAL GlcCer SYNTHESIS.** Julia Zambito,¹ Krupanandan Haranahalli,² Yi Sun,¹ Cristina Lazzarini,³ Maurizio Del Poeta³ and Iwao Ojima^{1,2}
¹Department of Chemistry, Stony Brook University, Stony Brook, NY 11790-3400 ²Institute of Chemical Biology & Drug Discovery, Stony Brook University, Stony Brook, NY 11790-3400 ³Department of Molecular Genetics and Microbiology, Stony Brook University, Stony Brook, NY 11794-5222
- 11:15 SYNTHESIS OF A MANNOSE-RICH TETRAGLYCAN.** John Portelli, Steven Truong and David R. Mootoo Department of Chemistry, Hunter College, New York, NY 10065
- 11:30 INVESTIGATING ACID-CATALYZED NITRATION OF ACETOPHENONES.** Haley Tarbox and Nanette M. Wachter Department of Chemistry, Hofstra University, Hempstead, NY 11549
- 11:45 NOVEL SULFONAMIDE-ESTRADIOL CONJUGATES: SYNTHESIS AND CHARACTERIZATION.** Katherine Lloyd, Minal Jain and David P. Brown Department of Chemistry, St. John's University, Queens, New York, 11439
- 12:00 CIS-TRANS ISOMERIZATION OF NITRODIENES.** Biling Chen,¹ Sasan Karimi¹ and Gopal Subramaniam² ¹Department of Chemistry, Queensborough Community College, Bayside, NY 11364 ²Department of Chemistry and Biochemistry, Queens College, Flushing, NY 11367
- 12:15 SYNTHESIS OF SEVERAL BIOLOGICALLY ACTIVE PYRROLES.** Michelle Qu,¹ Sasan Karimi¹ and Gopal Subramaniam² ¹Department of Chemistry, Queensborough Community College, Bayside, NY 11364 ²Department of Chemistry and Biochemistry, Queens College, Flushing, NY 11367

PHYSICAL CHEMISTRY

Room: 270A

Moderator: William H. Hersh

- 11:00 RAMAN SPECTROSCOPIC STUDIES OF THE STRUCTURE OF CdSe/S QUANTUM DOTS.** Aisha Oza,¹ Natalie Saenz,² Leslie Hamachi,² Jonathan Owen² and Andrew Crowther¹ ¹Department of Chemistry, Barnard College and ²Department of Chemistry, Columbia University, New York, NY 10027
- 11:15 MODIFICATION OF SiO₂ AEROGEL ANODE MATERIALS WITH GRAPHENE AND CARBON NANOTUBE.** Wenyan Bi, Irina Chernyshova and Ponisseril Somasundaran Earth and Environment Engineering Department, Columbia University, New York, NY 10027
- 11:30 PH DOMAIN INTERACTIONS WITH LIPID MEMBRANE.** Joseph Marte, Dalia M. Hassan, Frank X. Vázquez. St. John's University. Department of Chemistry, St. John's University, Queens, NY 11439
- 11:45 COMPUTATIONAL INVESTIGATION OF CURCUMIN IN GASEOUS STATE, DIFFERENT ORGANIC SOLVENTS IN GASEOUS STATE, AND ITS ROLE IN ALZHEIMER'S DISEASE USING QUANTUM MECHANICS AND SEMI-EMPIRICAL METHODS.** Azka Asim, Bumjung Kim Ph.D. and Hanae Haouari Ph.D. Department of Chemistry, New Jersey City University, Jersey City, NJ 07305
- 12:00 MOLECULAR DYNAMICS STUDY OF DYNAMIN OLIGOMERS IN SOLUTION.** Dalia Hassan and Frank X. Vazquez Department of Chemistry, St. John's University, Queens, NY 11439

POLYMER CHEMISTRY I

Room: 265C

Moderator: Towheed Mahmud

- 11:00 THE EFFECT OF POLYDOPAMINE ON ELECTROSTATICALLY CROSSLINKED DEXTRAN SULFATE-POLYETHYLENE IMINE (PEI) HYDROGELS.** Abdulhaq Syed and Naphtali O'Connor Department of Chemistry, Lehman College, CUNY, Bronx, NY 10468
- 11:15 COMPRESSIVE STRENGTH OF DEXTRAN HYDROGELS CROSSLINKED WITH POLYDOPAMINE.** Josiah Hicks and Naphtali O'Connor Department of Chemistry, Lehman College, City University of New York, 250 Bedford Park Boulevard West, New York, NY 10468

11:30 TEMPERATURE SENSITIVE AND REDOX DEGRADABLE HYDROGEL CORES FOR DRUG-DELIVERING LIPOBEADS. Mitchel Sybesma and Dr. Sergey Kazakov Department of Chemistry & Physical Sciences, Pace University, Pleasantville, NY 10570

11:45 PHOTO-PATTERNED PROTEIN ENGINEERED HYDROGEL. Erika Delgado-Fukushima¹, Yao Wang¹, Jin Kim Montclare^{1,2,3,4}. ¹Chemical and Biomolecular Engineering, NYU Tandon School of Engineering, Brooklyn, NY. ²Chemistry, New York University, New York, NY. ³Biomaterials, New York University College of Dentistry, New York, NY. ⁴Radiology, NYU Langone Health, New York, NY, USA

POLYMER CHEMISTRY II

Room: 265H

Moderator: Pamela Tabaquin/Princess Tabaquin

11:00 QUANTITATIVE ANALYSIS OF ETHYLENE VINYL ALCOHOL COPOLYMERS AND POLYVINYL PYRROLIDONE- POLYVINYL ACETATE COPOLYMERS AND BLENDS BY FOURIER TRANSFORM INFRARED SPECTROSCOPY AND ELEMENTAL ANALYSIS. Joseph Mancuso, Ling Huang and Ronald P. D'Amelia Department of Chemistry, Hofstra University, Hempstead, NY 11549

11:15 CHARACTERIZATION AND SYNTHESIS OF HYBRID POLYCARBOSILANE MONOMERS BY CATALYTIC HYDROSILATION REACTION Sunaldeep Singh, Ronald P. D'Amelia and William F. Nirode, Department of Chemistry, Hofstra University, Hempstead, NY 11549

11:30 ABSORPTION AND RELEASE PROPERTIES OF DEXTRAN-POLYDOPAMINE AND POLYETHYLENIMINE HYDROGELS. Elena Dermendzhieva and Naphtali O'Connor Department of Chemistry, Lehman College, City University of New York, 250 Bedford Park Boulevard West, New York, NY 10468

11:45 MORPHOLOGY OF POLY(2,5-DIMETHYLANILINE) PREPARED FROM W/O/W DOUBLE EMULSIONS. Megan Pirtle, Dr. David M. Sarno Department of Chemistry, Queensborough Community College, Bayside, NY 11364

12:00 AZABORININE POLYMERS AS B-N ANALOGS OF POLYSTYRENES. Berothy Jilus, Huina Lin and Frieder Jäkke Department of Chemistry, Rutgers University, Newark, NJ 07102