ROCHESTER ACADEMY
OF SCIENCE

44th Annual Fall Scientific Paper Session

Saturday, November 11, 2017

ST. JOHN FISHER COLLEGE

Hosted by St. John Fisher College
# Rochester Academy of Science

## Fall Scientific Paper Session

Saturday, November 11, 2017

Hosted by:
St. John Fisher College
Rochester, NY

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Schedule of the Day

8:00 – 9:00  Registration and Coffee  Integrated Sciences and Health Sciences (ISHS) Entrance

8:00 – 11:15  Poster Setup  Wegmans School of Pharmacy (WSOP) Atrium

9:00 – 10:15  Oral Presentations
  Session I  Chemistry  Skalny 141
  Session II  Ecology I  ISHS 118
  Session III  Cellular & molecular biology I  WSOP129
  Session IV  Animal physiology & behavior  WSOP132
  Session V  Microbiology & Biotechnology  WSOP133

10:15 – 10:30  Break

10:30 – 11:45  Oral Presentations
  Session VI  Ecology & biotechnology  Skalny 141
  Session VII  Ecology II  ISHS 118
  Session VIII  Cellular & molecular biology II  WSOP129
  Session IX  Cellular & molecular biology III  WSOP132
  Session X  Geology, ethnography, and education  WSOP133

12:00 – 1:00  Poster Session  Campus Center
  Wegmans School of Pharmacy Atrium

1:00 – 2:00  Lunch  Ward-Haffey Dining Hall
  Reserved Seating straight ahead of entrance
  Last minute diners may pay at the Cafeteria

2:00 – 3:00  Public Keynote Lecture  Cleary Auditorium, Kearney Hall

**Saving the rainforest with a stethoscope and hoof trimmers**
Dr. Jeff Wyatt, DVM, Professor & Chair of Comparative Medicine at the University of Rochester School of Medicine & Dentistry and Director of Animal Health & Conservation at Seneca Park Zoo
Oral Presentations

Presentations are located in Skalny Science Center, Integrated Sciences and Health Sciences, and Wegmans School of Pharmacy Buildings

Session I – Chemistry
Room: Skalny 141

9:00 – 9:15 a.m.  
X-RAY PHOTOELECTRON SPECTROSCOPY FROM TITANIUM NANOPARTICLES ON METAL OXIDES.  
Conner Brown, Michael Pierce, Rochester Institute of Technology

9:15 – 9:30 a.m.  
CARBENE LABELLING OF GAS PHASE PEPTIDE IONS: A NOVEL TECHNIQUE FOR STUDYING PROTEIN TOPOGRAPHY.  
Gregory Ballard, Paul Martino, Houghton College

9:30 – 9:45 a.m.  
DISTRIBUTED PHARMACEUTICAL ANALYSIS LABORATORY (DPAL) – METFORMIN ANALYZED VIA HPLC.  
Maham Alamgir, Dr. Robyn E. Goacher, Niagara University

9:45 – 10:00 a.m.  
SURFACE MODIFICATION OF POLYBENZIMIDAZOLE (PBI) TREATED WITH OZONE.  
* RIT School of Chemistry and Material Science, ** RIT Dept. of Mechanical Engineering, *** Xerox Analytical Services

10:00 – 10:15 a.m.  
THE DEVELOPMENT OF A BIOADHESION-RESISTANT SELF-ASSEMBLED SCAFFOLD FOR THE CHEMICAL ATTACHMENT OF ENZYMES TO GOLD SURFACES.  
Jim Duchesneau, Brian Gregory, Wells College, Samford University

Session II – Ecology I
Room: ISHS 118

9:00 – 9:15 a.m.  
CLIMATE CHANGE AND ENDANGERED MUTUALISMS: THE IMPACT OF INCREASED TEMPERATURES ON POLLINATOR ACTIVITY.  
Stephanie Facchine, State University of New York Oswego

9:15 – 9:30 a.m.  
Spiranthes ovalis var. erostellata - A NATIVE ORCHID NEW TO NEW YORK.  
Steven Daniel, Anne Johnson, Monroe Community College; Botanical Consultant

9:30 – 9:45 a.m.  
INVESTIGATION OF NEST PREDATION AS A CAUSE OF TURTLE CAPTURE RATE DECLINES ON THE SEQUOYAH NATIONAL WILDLIFE REFUGE, OK.  
Alexandra Shipman, Dr. Paul Shipman, Rochester Institute of Technology

9:45 – 10:00 a.m.  
THE ECOLOGY OF ALPINE SNOWBANK COMMUNITIES OF MT. WASHINGTON, NH.  
Kevin Berend, Kathryn Amatangelo, The College at Brockport, SUNY

10:00 – 10:15 a.m.  
EFFECTS OF INVASIVE PALE SWALLOWORT ON NATIVE SOIL BACTERIA  
Michael Szarowski, Wells College
Session III – Cellular & molecular biology I
Room: WSOP 129

9:00 – 9:15 a.m. FUNCTIONAL CHARACTERIZATION OF A MEMBER OF THE NUDIX HYDROLASES
Zane Wetzel, Katie Wilson, Jeffrey Mills, Suzanne O’Handley, Rochester Institute of Technology

9:15 – 9:30 a.m. FUNCTIONAL CHARACTERIZATION OF THE NUDIX HYDROLASE 3QSJ
Katherine Wilson, Zane Wetzel, Jeffrey Mills, Suzanne O’Handley, Rochester Institute of Technology

9:30 – 9:45 a.m. IDENTIFICATION AND CHARACTERIZATION OF DNA REGULATORY ELEMENTS VIA THE COMBINATION OF GENETICS AND BIOINFORMATICS.
Samantha J. Terhaar, Douglas J. Guarnieri, Saint Bonaventure University

9:45 – 10:00 a.m. STRUCTURE AND FUNCTIONAL ANALYSIS OF REGULATORY ELEMENTS INVOLVED IN THE MAINTENANCE OF GERM LINE STEM CELLS.
Dallas Fonseca, Vandita Bhat, Zachary Campbell, Te-Wen Lo, Ithaca College

10:00 – 10:15 a.m. ENCAPSULATION AND DELIVERY OF TRASTUZUMAB INTO HUMAN BREAST CANCER CELLS USING CHOLESTOSOMES™
T. Huynh1, J.Cubello1, J. F. McArthur2, M.Q.Irving3, J. Hughes1, J.Schentag2,3,4, L. M. Mielnicki1,3, M. P. McCourt1,3, 1Niagara University Department of Chemistry, Biochemistry and Physics- Niagara University, 2State University of New York at Buffalo, Department of Pharmacy and Pharmaceutical Sciences, 3CPL Associates, 4TheraHoldings AG

Session IV – Animal physiology & behavior
Room: WSOP 132

9:00 – 9:15 a.m. EMBRYONIC EXPOSURE OF CHICKEN CHICKS (Gallus gallus domesticus) LEADS TO HEIGHTENED SENSITIVITIES TOWARDS THE EXPOSED SCENT
Hughes Ryan, Gregory B. Cunningham, St. John Fisher College

9:15 – 9:30 a.m. TESTING TERATOGENICITY OF PENICillin ON PLANARIAN REGENERATION
Asya Kadic and Poongodi Geetha-Loganathan, SUNY Oswego

9:30 – 9:45 a.m. SPRINT TRAINING IMPROVES ENDURANCE PERFORMANCE BUT NOT SPRINT PERFORMANCE IN AGED ZEBRAFISH, OR DOES IT?
Brian Tran, Dr. Kathleen Savage, St. John Fisher College

9:45 – 10:00 a.m. DO NON-NATIVE ANTS EAT THEMSELVES TO CARRYING CAPACITY
Kazz Archibald, Robert Warren, State University of New York College at Buffalo

10:00 – 10:15 a.m. THIAMINE CONCENTRATION AND LIPID CONTENT OF PREY FISH FROM THE GREAT LAKES REGION.
Nicholas Farese, Matthew Futia, Jacques Rinchard, The College at Brockport - State University of New York
Session V – Microbiology & biotechnology
Room: WSOP 133

9:00 – 9:15 a.m.  MICROBIOTA OF THE INVASIVE CROP PEST, SPOTTED WING DROSOPHILA.
Gabrielle Solomon, Peter Newell, SUNY Oswego

9:15 – 9:30 a.m.  GROWTH OF Shewanella oneidensis IN THE PRESENCE OF TOXIC METALS: A BASIS FOR SUSTAINABLE SEMICONDUCTING NANOPARTICLE BIOSYNTHESIS.
Alexis Bell, Sanela Lampa-Pastirk, Nazareth College

9:30 – 9:45 a.m.  NOREPINEPHRINE’S EFFECT ON THE ABILITY OF ENTEROBACTERIACEAE TO COMMUNICATE WITH EACH OTHER
Shanique Service, Mark Gallo, Ph.D., Niagara University

9:45 – 10:00 a.m.  INVESTIGATION INTO SLFN11 MEDIATED INHIBITION OF INFLUENZA VIRAL PROTEIN PRODUCTION.
Alex Freedenberg\(^1\), Stephen Dewhurst\(^2\), and Jonelle Mattiacio\(^1\), \(^1\)St. John Fisher College, \(^2\)University of Rochester

Session VI – Ecology & biotechnology
Room: Skalny 141

10:30 – 10:45 a.m.  NONLINEAR MECHANICS AND CRACK PROPAGATION IN ARTICULAR CARTILAGE MODELED AS A DOUBLE NETWORK GEL
Leo Sutter, Andrew Sindermann, Moumita Das, Rochester Institute of Technology

10:45 – 11:00 a.m.  POPULATION GENETICS OF SCAEVOLA ON CULEBRA, PUERTO RICO.
Lauren Hodkinson, Susan Witherup, Ithaca College

11:00 – 11:15 a.m.  DETERMINATION OF BIOFOULING MECHANISMS OF SINGLE AND BINARY PROTEIN SOLUTIONS OF BSA AND HEMOGLOBIN UNDER VARYING pH AND SALINITY CONDITIONS.
Shivam Tewari, Elana Stennett, Hobart and William Smith Colleges

11:15 – 11:30 a.m.  CONSUMER ADAPTATION MEDIATES TOP-DOWN REGULATION OF ECOSYSTEMS ACROSS A PRODUCTIVITY GRADIENT.
Michael F. Chislock, Alan E. Wilson, Ash Abebe, Orlando Sarnelle, The College at Brockport, Auburn University, Michigan State University
**Session VII – Ecology II**  
Room: ISHS 118

10:30 – 10:45 a.m.  
**BREEDING BIOLOGY OF RED-WINGED BLACKBIRDS (Agelaius phoeniceus) IN STORMWATER RETENTION PONDS ON THE COLLEGE AT BROCKPORT CAMPUS.**  
Abigail Butler, _The College at Brockport_

10:45 – 11:00 a.m.  
**IDENTIFYING THE SOURCE OF INFECTION IN SNAPPING TURTLE (Chelydra serpentine) EGGS**  
Jerome Job, Poongodi Geetha-Loganathan, _SUNY Oswego_

11:00 – 11:15 a.m.  
**VEGETATION AND SMALL MAMMAL INTERACTIONS DETERMINING TICK ABUNDANCE ACROSS SPATIAL SCALES.**  
Claire Hartl, Kathryn Amatangelo, _SUNY Brockport_

11:15 – 11:30 a.m.  
**VEGETATION HEIGHT INFLUENCES NEST BOX PREFERENCE AND PRODUCTIVITY OF EASTERN BLUEBIRDS (Sialia sialis).**  
Zac Falconer, Oscar Pecci Perez, and Andie Graham, _SUNY Brockport_

**Session VIII – Cellular & molecular biology II**  
Room: WSOP 129

10:30 – 10:45 a.m.  
**STUDYING THE HUMAN CANCER GENE, ERH, WITHIN THE FRUIT FLY, Drosophila melanogaster**  
Stuart Tsubota, Theodore Ryan, Nicholas Rizzo, _The College at Brockport_

10:45 – 11:00 a.m.  
**A METHODICAL ANYLYSIS FOR PURIFYING PRIMARY CILIA FROM DIFFERENTIATING 3T3-L1 PRE-ADIPOCYTES.**  
Tamecia N. Browne, Brett Henderson and Laurie B. Cook, _The College at Brockport_

11:00 – 11:15 a.m.  
**TARGETED MUTAGENESIS IN Drosophila USING CRISPR-CAS9.**  
Timothy Rooney, Steven Stowers, Douglas J. Guarnieri, _Saint Bonaventure University_

11:15 – 11:30 a.m.  
**ROLE OF CONFINEMENT ON TWO-STATE TRANSPORT OF A MOTOR-DRIVEN CARGO IN CYTOSKELETAL NETWORKS**  
Supravat dey, Kevin Ching, Moumita Das, _Rochester Institute of Technology_
Session IX – Cellular & molecular biology III
Room: WSOP 132

10:30 – 10:45 a.m. DISCOVERY OF CONCURRENT DIRECT AND INDIRECT CHANNEL POLARIZATION TRANSFER IN DYNAMIC NUCLEAR POLARIZATION EXPERIMENTS WITH NONIONIC SURFACTANTS.
Markus M. Hoffmann, Sarah Bothe, Torsten Gutmann, Gerd Buntkowsky, The College at Brockport, SUNY

10:45 – 11:00 a.m. MODELING THE BIOPHYSICS OF TRANSPORT OF CARGOS IN CROWDED CELLULAR ENVIRONMENTS
Kevin Ching, Moumita Das, Rochester Institute of Technology

11:00 – 11:15 a.m. EFFECTS OF S-NITROSATION ON PEROXIDASE PATHWAYS IN Brassica rapa.
Aaliyah W. Grandy, Alexander S. Milliken, Lindsay S. Burwell, Wells College

11:15 – 11:30 a.m. FATTY ACID SIGNATURES OF SALMONINE FISH FROM LAKE MICHIGAN.
Christopher Maier, Nathan Barker, Michelle Edwards, Sergiusz Czesny, and Jacques Rinchard, The College at Brockport- State University of New York

Session X – Geology, ethnography, and education
Room: WSOP 133

10:30 – 10:45 a.m. ARROWS IN BIOLOGY: POINTING TO CONFUSION FOR LEARNERS
Jordan J. Cardenas, Dina L. Newman, L. Kate Wrights, Rochester Institute of Technology

10:45 – 11:00 a.m. PRODUCING INTERACTIVE VIDEO VIGNETTES: AN ONLINE, LIVE-ACTION-BASED APPROACH TO SUPPLEMENTAL LEARNING.
Patrick Rynkiewicz, Dina L. Newman, L. Kate Wright, Rochester Institute of Technology

11:00 – 11:15 a.m. NI UNA MENOS: A NEW MOVEMENT AGAINST GENDER VIOLENCE IN LATIN AMERICA.
Samantha Martin, SUNY Geneseo

11:15 – 11:30 a.m. STUDY OF HISTORIC QUARRIES IN ERIE AND NIAGARA COUNTIES, NEW YORK, 1820-1930
Mariana L. Rhoades, Stone Industry Research
Poster Presentations
Grouped by subject (Sorted alphabetically by the last name of the first author)

Education

1. FACILITATING EARTH SCIENCE EDUCATION THROUGH A PARTNERSHIP OF TEACHERS AND AMATEUR PALEONTOLOGISTS.
Daniel Krisher
Rochester Academy of Science

Ecology

2. LIFE ON THE EDGE: THE CREATION OF, AND CONSERVATION IN, HIGHWAY ROADSIDES.
Kaitlin Stack Whitney
Rochester Institute of Technology

3. MACROINVERTEBRATE COMMUNITIES ASSOCIATED WITH THREE AQUATIC PLANT SPECIES (*Trapa natans*, *Elodea canadensis*, AND *Vallisneria americana*).
Benjamin Ecker, Congcong Wang, Yongli Gao
University of Rochester, Department of Physics and Astronomy

4. MACROPHYTE RAKE SURVEYS IN CANANDAIGUA LAKE, 2016-2017, WITH MAPPED SPATIAL PATTERNS FOR AQUATIC INVASIVE SPECIES.
Kim McGarry, Bruce Gilman
Finger Lakes Community College

5. MITIGATION OF ORGANIC WASTEWATER CONTAMINANTS FROM THE LAKE ONTARIO EMBAYMENT (MONROE COUNTY) VIA EMULSIONS AND BIOREMEDIATION TECHNOLOGIES.
Erika Bravo, Maryann Herman, Ph.D, Fernando Ontiveros, Ph.D., and Anju Gupta, Ph.D.
St. John Fisher College

6. POPULATION GENETICS IN DAPHNIA TOWED FROM ROUND POND.
Dr. Kaitlin Bonner, Bartelli Sara, Cotugno Gabriella
St. John Fisher College

7. POPULATION GENETICS OF THE COMMON RAVEN IN MEXICO
Sally Yraita, Nandadevi Cortes Rodriguez
Ithaca College

8. POTENTIAL EUTROPHICATION OF BUCK POND, GREECE, NY? A TROPHIC PROFILING AND WATER QUALITY TO ADDRESS THE CONCERNS OF THE LOCAL COMMUNITY.
Faith Downes, Ivan Gergi, Jacob Murphy, Gannon Connors, Sarah Izzo, Emiliee Hyde, Brooke Zeller, Nini Doan-Nguyen, Rachael Pacella, Jessica Losee, Sabrina Joseph, Dani Painter, Ashley Harford, Barsha Biswa, Jack Wessel, Alyssa Merrill, Julia Widmer, Rachael Moyles, Padmini Das, David Giacherio,
9. RATES OF AGGRESSION IN CAPTIVE BELUGA WHALES FOLLOWING POOL MERGERS
Jay Cooney, Michael Noonan
Canisius College

10. RATES OF BROWN-HEADED COWBIRD PARASITISM AND FLEDGING SUCCESS DEPEND ON SIZE OF HOST SPECIES.
W.P. Brown
Keuka College

11. REACTIONS TO ENRICHMENT OBJECTS IN CAPTIVE BELUGA WHALES (DELPHINAPTERUS LEUCAS)
Emily Began, Michael Noonan
Canisius College

12. SEX-SPECIFIC SOCIAL AFFILIATION IN CAPTIVE BELUGA WHALES (DELPHINAPTERUS LEUCAS).
Samuel J. Ciurca, Jr.
Rochester Academy of Science - Fossil Section

13. SPOTTED SALAMANDER (AMBYSTOMA MACULATUM) CONSERVATION STRATEGIES DURING SPRING MIGRATION.
Ben Knowlton, Bruce Gilman
Finger Lakes Community College

14. THE EFFECT OF URBANIZATION ON MONARCH BUTTERFLY HABITAT.
Laura A.B. Smith, Tara Cornelisse PhD
Canisius College

15. THE EFFECTS OF PALE SWALLOWWORT (CYNANCHUM ROSSICUM) ON NATIVE MOTH COMMUNITIES.
Wyatt Jackson, Kathryn Amatangelo
SUNY Brockport

16. THE USE OF A BATESIAN MIMICRY LEARNING MODEL TO REDUCE TURTLE NEST PREDATION RATES.
Paul Shipman, Nicole Dergosits, Elijah Hall, Gretchen Horst, Christina Ideman, Taylor Kovar, Teresa Leon, Michael Litman, Charles Parr, Ryan Pluck, Emily Waller, Collin Zelli
Rochester Institute of Technology

17. THE USE OF ARTIFICIAL NEST BOXES TO DETERMINE PREFERENCE AND PRODUCTIVITY OF HOUSE WRENS AT THE SUNY BROCKPORT CAMPUS
Emily Jackson
SUNY Brockport
18. USING STABLE HYDROGEN ISOTOPES TO REVEAL MIGRATORY PATTERNS IN COMMON YELLOWTHROATS
Veronica Schabert, Kelly Roberts, and Kristen Covino
*Canisius College*

19. USE OF DRONES IN MONITORING THE EXTENT OF INVASIVE SPECIES IN THE FINGER LAKES.
Joshua Andrews, Ileana Dumitriu, Ph.D., Peter Spacher, Ph.D.
*Hobart and William Smith Colleges,*

20. MARMOSET CALL RECOGNITION USING NEURAL NETWORKS.
Elizabeth Moore, Ross Snider, Ph.D.
*Montana State University, Electrical and Computer Engineering Department, Hobart and William Smith Colleges, Physics Department*

21. A COMPARISON OF THREE METHODS OF POST-MORTEM TOOTH ANALYSIS TO AGE WHITE-TAILED DEER.
Noah Seabrook, C. Eric Hellquist
*SUNY Oswego*

22. A NUTRITIONAL EXPLORATION OF COMMON BUCKTHORN FRUIT AND ITS VALUE FOR MIGRATORY BIRDS.
Molly Border, Gretchen Horst, Susan Smith Pagano
*Rochester Institute of Technology*

23. ABUNDANCE OF MICROPLASTICS IN STOMACH CONTENTS OF LAKE ONTARIO CHINOOK SALMON (*ONCORHYNCHUS TSHAWYTSCHA*) AND ALEWIFE (*ALOSA PSEUDOHARENGUS*).
Julia Stephens, Alinda Dygert
*SUNY Oswego*

24. ADAPTIVE MANAGEMENT OF PALE SWALLOW-WORT.
Jackie Schnurr, Tessa Hopt, Jiali Liu, Caitlynn Smith, Mike Szarowski
*Wells College*

25. ALLOMOTHERING OF A NEWBORN BELUGA CALF
Leanne Walker, Michael Noonan
*Canisius College*

26. AN INVESTIGATION OF NUTRITIONAL EFFECTS ON BEECH BARK DISEASE CAUSAL ORGANISMS.
Gretchen Lasser, Mariann Johnston, Mike Mahoney, Vizma Leimanis, Jason Stoodley
*SUNY-ESF*

27. ANALYSIS OF SOUNDCAPES AND VEGETATIVE DIVERSITY IN LETCHWORTH STATE PARK.
Abigail Bobbette, Jennifer Rowan, Faculty: Kristina Hannam
*SUNY Geneseo*
28. ANALYZING THE FACTORS THAT PLAY A ROLE IN NEST BOX SELECTION AND NEST SUCCESS OF TREE SWALLOWS (TACHYCYNETA BICOLOR).
Oscar Pecci Perez, Zac Falconer, Emily Jackson, and Andie Graham
SUNY Brockport

29. ASSESSMENT OF TWO VERNAL POOLS IN AURORA, NY, FALL 2017.
Shania Dauphinais, Niamh O’Leary
Wells College

30. CHARACTERIZATION OF GUT BACTERIA DIVERSITY IN MIGRATORY SONGBIRDS
David Held, Lexie Haley, Ashlyn Kornetz, Allison Rehm, Kelly Roberts, Veronica Schabert, Kristen Covino, Daniel P. Haeusser
Canisius College

31. CHLORIDE AND HEAVY METALS IN NATURAL AND IMPOUNDED WATER BODIES OF ALLEGANY COUNTY, NY.
James Wolfe, Alison Apgar, Natalia Cabrera-Febres, Hawa-Dorcas Coulibaly, Alyson DeMerchant, Daniel Hammers, Andrew Hutton, and Evan Stern. Biology Department, Houghton College, Houghton. NY 14744
Biology Department, Houghton College

32. DECADAL CHANGES IN SALT MARSH PRODUCTION AND CARBON STORAGE: A TEST OF THE SPACE-FOR-TIME SUBSTITUTION APPROACH.
Sarah Goldsmith, Ryan Brett, Charles Bachmann, David Osgood, Christy Tyler
Rochester Institute of Technology

33. DISTRIBUTION OF MACROINVERTEBRATE ASSEMBLAGES OF IRRIGATION DITCHES AND STREAMS IN WESTERN MONTANA, IN RELATION TO PHYSIOCHEMICAL CHARACTERISTICS.
Meredith Kadjeski
Trent University

34. DOES BIOFILM NUTRIENT RECYCLING MATTER AT THE ECOSYSTEM SCALE?
Maria Butler, Mansi Chhina, Michelle Baskins, and Jonathan O’Brien
Canisius College

35. EFFECT OF HABITAT TYPE ON WASP ABUNDANCE AND DIVERSITY ON THE SUNY GENESEO CAMPUS.
Jason Lang, Jennifer Apple
Department of Biology, SUNY Geneseo

36. EFFECTS OF ATRAZINE ON FRESHWATER MUSSELS
Manna Job, Poongodi Geetha-Loganathan
SUNY Oswego
37. EFFECTS OF CLIMATE WARMING IN SHALLOW, LARGE NEW YORK STATE LAKES.
Teryl R. Gronwall
Honeoye Lake Watershed Task Force

38. EFFECTS OF FULLERENES ON A FRESHWATER BENTHIC COMMUNITY: TOXICITY AND IMPLICATIONS FOR ENVIRONMENTAL PROCESSES AND FUNCTIONS.
Sarah Ponte Cabral, Charles Border, Callie Babbitt, Christy Tyler, and Elizabeth Wronko
Rochester Institute of Technology

39. EFFECTS OF GRAZING ON CARBON STORAGE IN CREATED WETLANDS
Delanie Spangler, Evan Squire
RIT Environmental Science BS/MS

40. FISH SURVEY OF LETCHWORTH STATE PARK
Steven Anderson, Alyson DeMerchant, Halie Smith, Annemarie Ranger, Rebecca Williams
Houghton College

41. IF YOU CAN’T TAKE THE HEAT... SEASONAL PATTERNS IN TEMPERATURE SENSITIVITY OF MICROBIAL EXOENZYMES IN RIVER BIOFILMS
Sameer Jhaveri, Jonathan O'Brien
Canisius College

42. EFFECTS OF PLASTIC POLYMER COMPOSITION ON EARLY MICROBIAL ASSOCIATION IN A FRESHWATER ENVIRONMENT
Renee Hoover, Carley McMullen, Mark Gallo, Ph.D.
Niagara University, Dept of Biology

43. ENVIRONMENTAL CONTEXT INFLUENCE ON THE COMMON MUDPUPPY (NECTURUS MACULOSUS).
Adam Haines, Christopher Pennuto
Buffalo State College

44. FATTY ACID SIGNATURES OF PREY FISH FROM LAKE MICHIGAN
Nathan Barker, Sergiusz Czesny, Jacques Rinchard
SUNY College at Brockport

45. FULLERENE EXPOSURE INCREASES BLUEGILL PREDATION ON DAPHNIA PULEX.
Emily Bush, Truc-Nhi Do, George Rogalskyj, Elizabeth Moore, Sandra Connelly, Callie Babbitt, Christy Tyler
RIT- Environmental Science

46. GALLUS GALLUS DOMESTICUS (BANTAMS) AS AN EXPERIMENTAL MODEL TO STUDY LONG-TERM SURVIVAL OF ALLORHIZOBIUM VITIS ON THE FEET OF AVIAN SPECIES.
Luciana Cursino1, Rory Doremus1, Paulo Cursino-Santos2, Barbara Demjanec1 and William Brown1
Keuka College
47. GREEN MACHINES: DO RIVER BIOFILMS LEARN TO RECYCLE AS THEY AGE?
Mansi Chhina, Sophia Miracle, and Jonathan O’Brien
Canisius College

48. HISTOLOGICAL ANALYSIS OF THE EFFECTS OF ESTROGEN MIMICS ON BLACKNOSE DACE IN THE FINGER LAKES REGION
Nhung Nguyen, Penelope Murphy, Susan Cushman, Walter Bowyer
Hobart and William Smith Colleges

49. IMPACT OF JAPANESE BARBERRY ON THE PHYSIOLOGICAL CONDITION OF BREEDING OVENBIRDS.
Abigail Frawley, Katherine Hensel, Chad Seewagen, and Susan Smith Pagano
Rochester Institute of Technology

50. CHANGES IN FREQUENCY, CALL LENGTH, AND NOTE INTERVALS IN WINTER VOCALIZATIONS OF SPECIES EXPOSED TO VARYING LEVELS OF ANTHROPOGENIC NOISE.
Leeann Bruetsch, Kayla Schum, Dr. Kristina Hannam
Department of Biology at SUNY Geneseo

51. EFFECT OF BIOAVAILABLE LEAD PHOSPHATE IN GLYCINE MAX GROWN IN SOIL INOCULATED WITH RHIZOBIUM.
Tilor Hallquist, Kelsey Lawton, Amanda Van, Olivia Lopatofsky, Gregory Fox, Dr. Seema Thomas
Rochester Institute of Technology

52. IDENTIFYING REPRODUCIBLE METHODS FOR MICROALGAE BIODIESEL PRODUCTION.
Colleen Steward, Shannon Murphy, Dr. Barnabas Gikonyo
SUNY Geneseo

Botany & Agriculture

53. ISOLATION OF BACTERIAL ENDOPHYTES FROM GARLIC: PRODUCTION OF QUORUM-SENSING SIGNALS IN THE ACYL-HOMOSERINE LACTONE CLASS
Janelle Fancher, Maria Kajdasz, Isaac Cowan Shania van Nuland, Mark Gallo, Ph.D.
Niagara University, Dept of Biology

54. INVESTIGATING THE ALLELOPATHIC EFFECTS OF PALE SWALLOWWORT (CYNANUCHUM ROSSICUM) ON THE GROWTH SUCCESS OF COMMON MILKWEED (ASCLEPIAS SYRIACA) AND PALE SWALLOWWORT.
Jessica DeToy, Dr. Kathryn Amatangelo
SUNY Brockport

55. PRESENCE OF ALLORHIZOBIUM VITIS IN THE GUT OF WILD HOUSE SPARROWS (PASSER DOMESTICUS) SAMPLED FROM FINGER LAKES VINEYARDS.
Luciana Cursino, Rory Doremus, and William Brown
Keuka College
56. SOIL NUTRIENTS AFFECT ON FALL LEAF RETENTION IN NORTHERN HARDWOOD FORESTS.
Madison S. Morley, Griffin E. Walsh, Ruth D. Yanai
SUNY College of Environmental Science and Forestry

57. SPECIFIC LEAF AREA AND AMINO ACIDS VARY WITHIN SUGAR MAPLE CANOPIES AND ACROSS A N*P FERTILIZATION EXPERIMENT
Alex Young, Ruth Yanai, Rakesh Minocha, Stephanie Long
SUNY ESF

58. SYNERGY BETWEEN SIMULTANEOUS AND SEQUENTIALLY APPLIED LACCASE AND XYLANASE IN THE DEGRADATION OF WOOD INTO BIOFUELS
Zachary Augustyn, Dr. Robyn Goacher
Niagara University

59. THE EFFECT OF COMPOST ADDITION ON BIOGEOCHEMICAL CYCLES IN CREATED WETLANDS
Michael McGowan, Benjamin Hamilton, Thulfiqar Al-graiti, Taylor Williams, Sonia Huang, Carrie McCalley, Christy Tyler
Rochester Institute of Technology

60. THE POLLINATION BIOLOGY OF SCAEVOLA PLUMIERI IN VIEQUES, PUERTO RICO ISLAND.
Ngawang Chime
Ithaca college

61. THE STATUS OF WESTERN BEAN CUTWORM, STRIACOSTA ALBICOSTA (SMITH), IN NEW YORK STATE.
Marion Zuefle, Ken Wise, Keith Waldron and Carol MacNeil
NYS IPM Program

62. TWO YEARS OF INVASIVE CATTAIL MANAGEMENT VIA MANUAL REMOVAL.
Sarita Charap, Stephanie Facchine, Joe McCarthy, Alexander Steiner, Faith Page, Eric Hellquist
State University of New York Oswego

63. BATTLE OF THE BABIES: BEECH INTERFERENCE WITH MAPLE REGENERATION
Daniel S. Hong, Adam D. Wild, Mariann Johnston, Melany C. Fisk, Ruth D. Yanai
SUNY-ESF

64. CHOLESTEROL OXIDASE ACTIVITY IN THE SUBCELLULAR MEMBRANE FRACTIONS OF TRANSGENIC TOBACCO.
Daniel Nguyen#, John Cleary#, Robert Grebenok
Canisius College

65. DETERMINATION OF STEROL SPECIES AND LEVELS THAT PROVIDE LOCALIZED ENHANCEMENT OF ELECTRON TRANSPORT RATES IN TOBACCO THYLAKOID MEMBRANES.
Shivam Tewari, Elana Stennett
Hobart and William Smith Colleges
66. EFFECTS OF LONG-TERM NUTRIENT ADDITION ON ACER SACCHARUM SAP FLOW.
Alexandrea Rice
SUNY ESF

67. EVALUATION OF PESTICIDE RESIDUE CONTENTS IN FRUITS AND VEGETABLES AFTER DIFFERENT WASHING TREATMENTS.
Ilayda Kelley, Kyle Harbour
SUNY Oswego

68. GETTING BACK IN THE FIELD: UNDERGRADUATE RESEARCH PROJECTS ON ASIAN PEARS.
Taylere Herrmann, Morgan Pimm, Brianna Lees, Daniel Stein, Maryann Herman
St. John Fisher College

69. IN PLANTA DETECTION OF CURTOBACTERIUM SP. BIOCONTROL STRAIN BY MOLECULAR TECHNIQUES
Luciana Cursino and Amanda Magilton
Keuka College

Zoology & Physiology

70. INVESTIGATING ELECTRICAL STIMULATION AS A THERAPEUTIC MODALITY FOR SMOOTH MUSCLE RECOVERY AFTER INJURY.
Jung Hyun Ahn, Samuel H. Pyo, Ransom H. Poythress
Houghton College

71. INVESTIGATING POTENTIAL TRANSGENERATIONAL EFFECTS OF BISPHENOL A ON OBESITY IN DROSOPHILA MELANOGASTER.
Jung Hyun Ahn, Samuel H. Pyo, Ransom H. Poythress
Houghton College

72. INVESTIGATING THE IMPACT OF VARIOUS BISPHENOLS ON OBESITY IN DROSOPHILA MELANOGASTER.
Erik Baim, Edward Freeman
St. John Fisher College

73. INVESTIGATING THE POTENTIAL IMPACT OF BISPHENOL F ON ZEBRAFISH (DANIO RERIO) LARVAL SWIMMING BEHAVIOR.
Meghan Connor, Edward Freeman
St. John Fisher College

74. MEASURING IMMUNE RESPONSE IN RELATION TO PREVALENCE OF CHYTRIDIOMYCOSIS IN LITHOBATES CLAMITANS (GREEN FROG) POPULATIONS IN OSWEGO COUNTY NEW YORK.
Jason Lowery, Nathan McKean
SUNY Oswego
75. ORGANOGENESIS AFFECTED BY HARD ROCK MUSIC DURING CHICK EMBRYO DEVELOPMENT
Cliff-Simon Vital, Poongodi Geetha-Loganathan
SUNY Oswego Biological Sciences

76. PHENOTYPIC PLASTICITY IN D. MELANOGASTER: INVESTIGATING THE EFFECTS OF TEMPERATURE ON BODY SIZE.
Lota Ofodile, Judith Appenteng, Mubeen Jaffri, & Andrew D. Stewart
Canisius College

77. VALIDATION OF ANO1Δ7 TRANSGENIC ZEBRAFISH
Veronica Schabert, Kelly Roberts, and Kristen Covino
Canisius College

78. BREAST TISSUE MORPHOLOGY IN A HUMAN CADAVER POPULATION.
Stacy Amico-Ruvio, Nicole McGuire, John Fischer, and Megan Gervasi
D'Youville College

79. CRITICAL BONE FRACTURE REPAIRS: A COMPARISON OF THE MECHANICAL PROPERTIES OF CALCIUM PHOSPHATE BIOACTIVE CEMENT AND PIG BONE.
Barnabas Gikonyo, Sabrina Medina, Mark Soto
SUNY Geneseo

80. DETERMINING THE REQUIREMENT OF ANOCTAMIN 1 IN RHEOTAXIS USING ZEBRAFISH LARVAE.
Meghan Denny, Emily Amato, Seth Kirnie, Jessica Mayer, and dam Rich
The College at Brockport, SUNY

81. EFFECTS OF DISINFECTION BYPRODUCTS ON THE EARLY DEVELOPMENT IN ZEBRAFISH.
Shannon Keller, Rachel Pelsang, Sean Ryan
St. Bonaventure University

82. EVALUATING THE EFFECTS OF BISPHENOLS A, F, AND S ON PRIMORDIAL GERM CELL MIGRATION IN ZEBRAFISH (DANIO RERIO) EMBRYOS USING FLUORESCENT MICROSCOPY.
Adam Haines, Christopher Pennuto
Buffalo State College

83. EFFECT OF DIFFERENT MAGNESIUM SUPPLEMENTS ON MOUSE MAGNESIUM BALANCE
Tricia Cooke, Conner Kobus, Christopher Carlson, Gabriela Mercurio, Taylor Thompson, Bernardo Ortega
The College at Brockport, SUNY

84. GLUCOSE METABOLISM IN THE ANOCTAMIN 1 TRANSGENIC ZEBRAFISH
The College at Brockport, SUNY
85. IDENTIFICATION OF TRANSPOSABLE ELEMENTS IN THE GENOME OF THE TERRESTRIAL ISOPOD, TRACHELIPUS RATHKEI.
Rose Fontana, Christopher Chandler
SUNY Oswego

86. IDENTIFYING PROMOTER REGIONS OF GENES ESSENTIAL TO NOTOCHORD DEVELOPMENT IN ZEBRAFISH.
Rachel Pelsang, Shannon Keller, Sean Ryan, PhD.
St. Bonaventure University

87. INEXPENSIVE METHOD TO PERFORM GENOTYPING OF THE CANINE GENOME USING RFLP’S.
Armon Panahi, Samantha Terhaar, Kristy Richards, Douglas J. Guarnieri
Saint Bonaventure University

Microbiology & Infectious Disease

88. INFLUENCE OF ORAL PROBIOTICS ON THE ACCUMULATION OF ORAL PATHOGENS ON AN ARTIFICIAL SURFACE.
Irina Ardelean
St. John Fisher College

89. INHIBITION OF BACILLUS SUBTILIS CELL DIVISION BY THE SP01 BACTERIOPHAGE PEPTIDE GP56
Amit Bhambhani, Max Belfatto, Daniel P. Haeusser
Canisius College

90. INVESTIGATION INTO THE ANTIVIRAL ACTIVITY OF KALANCHOE PLANT EXTRACTS AGAINST INFLUENZA A VIRUS.
Irina Ardelean, Anand Sridhar, Ph.D., Maryann Herman, Ph.D., and Jonelle Mattiacio, Ph.D.
St. John Fisher College

91. ISOLATION OF BACTERIOPHAGE FROM STAPHYLOCOCCUS SPECIES
Janelle Fancher, Maria Kajdasz, Isaac Cowan Shania van Nuland, Mark Gallo, Ph.D.
Niagara University, Dept of Biology

92. NAGD FROM YERSINIA PESTIS
Minh Le, Lucinda Dass, Isreal Moreno, and Suzanne F. O’Handley
Rochester Institute of Technology

93. PREVALENCE OF BETA LACTAMASE ANTIBIOTIC RESISTANCE IN STAPHYLOCOCCUS SPECIES ISOLATED FROM WHITE-TAILED DEER IN WESTERN NEW YORK
Abigail E. Salter, Mark Gallo, Ph.D.
Niagara University Dept of Biology
94. PREVALENCE OF METHICILLIN RESISTANCE GENE VARIANTS IN A DAIRY HERD IN WESTERN NEW YORK
Emily E. Forrester, Rachisan G. Djiake, Mark Gallo, Ph.D.
Niagara University Dept of Biology

95. SUCCESSFUL CONSTRUCTION OF A PA1006/C-TERMINAL GFP FUSION PROTEIN TO INVESTIGATE MOLYBDENUM COFACTOR BIOSYNTHESIS IN PSEUDOMONAS AERUGINOSA.
Andrea Yamutuale, Nyshidha Gurijala, Shradha Mamidi, and Johanna Schwingel, PhD
St. Bonaventure University

96. SULFUR CYLCING BY MEMBERS OF THE ACIDITHIOBACILLUS GENUS IN THE ACIDIC SPRINGS OF THE IROQUOIS NATIONAL WILDLIFE REFUGE.
Haley V. Parker, and Cassandra L. Marnocha
Niagara University

97. SWIMMING VELOCITY ANALYSIS IN CHLAMYDOMonas REINHARDTII
Renae Bronakoski, Noveera Ahmed Ph.D.
St. John Fisher College

98. TARGETING DXP SYNTHASE USING THDP MIMICS TO DEVELOP NEWER ANTIbiOTICS
Peter Girardi, Amera Alsalahi, Dr. Kevin Callahan
St. John Fisher College

99. TESTING FOR MYCOPLASMA CONTAMINANTS BY POLYMERASE CHAIN REACTION (PCR).
Siti Nor Syahirah Zainuddin, Tyler C. Anderson, Noor Masleina Dahalan, Brianna Bonanni, Elizabeth Pattie, and Irene M. Evans
Rochester Institute of Technology

100. TRANSLATIONAL USE OF HOST-CELL STRESS GRANULES BY REOVIRUS.
Megan Worth, Dr. Emily Ledgerwood, Michael M. Lutz IV
Le Moyne College

101. UNTANGLING METABOLIC COOPERATION: INVESTIGATING SYNERGISTIC GROWTH OF ACETOBACTER AND LACTOBACILLUS BACTERIA IN CO-CULTURE.
Sarita Charap, Stephanie Facchine, Joe McCarthy, Alexander Steiner, Faith Page, Eric Hellquist
State University of New York Oswego

102. ANTIMUTATOR ACTIVITY OF NUDIX HYDROLASES FROM E. COli.
Thomas Hynes and Suzanne O'Handley
Rochester Institute of Technology

103. ARAL PHOSPHATASE FROM BACILLUS SUBTILIS, A MEMBER OF THE HAD SUPERFAMILY
Thomas Hynes and Suzanne O'Handley
Rochester Institute of Technology
104. CHROMOSOME SPATIAL DISTRIBUTION IN THE LARGE BACTERIUM *EPULOPISCium SP. TYPE B.*
Bayley Zubler, Kirk Anne, Elizabeth Hutchison, and Anne Pellerin.
*SUNY Geneseo*

105. CONCENTRATIONS OF HEAVY METALS AND BACTERIAL COMMUNITIES IN BOTTLED AND TAP WATER.
Emily Cooley, Jacqueline Epp, Abigail Leahey, C. Eric Hellquist
*SUNY Oswego*

106. EXAMINING THE IMPACT OF MU BACTERIOPHAGE KIL PEPTIDE ON MREB & FTSZ IN *E. coli*
Samantha Weiss, Laura Cavallari, Allyson Corigliano, Daniel Haeusser
*Canisius College*

**Cellular Biology, Molecular Biology, & Genetics**

107. INHIBITION OF NF-KB ACTIVATION AND SUPPRESSION OF THE IFN RESPONSE ARE INDEPENDENT FUNCTIONS OF THE VESICULAR STOMATITIS VIRUS MATRIX PROTEIN.
Amit Bhambhani, Max Belfatto, Daniel P. Haeusser
*Canisius College*

108. ISOLATION OF GLYCOSYL HYDROLASES TOWARDS GOAL OF UNIVERSAL BLOOD
Mia Byrd, Elaine Militello, Rafay Tariq, Mark Gallo, Ph.D.
*Niagara University, Dept of Biology*

109. MCH TREATMENT MAY DECREASE OVERALL MCHR1 LEVELS IN CILIATED AND FULLY DIFFERENTIATED 3T3-L1 CELLS.
Iesha DeLesline, Dr. Laurie Cook
*The College at Brockport State University of New York*

110. MEASURING APOPTOSIS IN HELA CERVICAL CANCER CELLS AND CAL-27 ORAL CANCER CELLS FOLLOWING TREATMENT WITH CURCUMIN AND PHOTODYNAMIC THERAPY
Christian Domin, Dr. Robert Greene
*Niagara University*

111. NOVEL SELENORHODAMINE DYES AS PHOTOSENSITIZERS IN EXTRACORPOREAL PHOTOPHERESIS.
Jacqueline Hill, Mark Kryman, Gregory Schamerhorn, Michael Detty, Zachariah McIver
*University at Buffalo*

112. OPTIMIZATION OF PARAMETERS FOR CARBENE LABELLING OF GAS PHASE PEPTIDE IONS: A NOVEL TECHNIQUE FOR STUDYING PROTEIN TOPOGRAPHY.
Jennifer Pond, Paul Martino
*Houghton College*
113. PROTEIN CATALYSTS FOR ENERGY STORAGE.
Jennifer Le, Vincenzo Firpo, Banu Kandemir, Saikat Chakraborty, and Kara L. Bren
University of Rochester

114. THE ANALYSIS OF PHOSPHORYLATION AND UBIQUITINATION OF AMINO ACIDS IN THE
ENHANCER OF RUDIMENTARY PROTEIN, ERH: CREATION OF MUTANT GENES
Amber Voyer
The College at Brockport, State University of New York

115. THE EVOLUTION OF DOSAGE COMPENSATION: WHAT HAPPENS WHEN YOU HAVE TWO X
CHROMOSOMES INSTEAD OF ONE.
Jacqueline Alexander, Jihye Lee, Barbara J. Meyer, Eric S. Haag, and Te-Wen Lo
Ithaca College

116. THE ROLE OF FILAMIN IN RESPONSE TO BRIEF MECHANICAL STIMULATION.
Jack Marcucci
SUNY Oswego

117. THE ROLE OF INTEGRIN A1B1 (VLA-1) IN CD8+ T CELL MOTILITY.
Patrick Buckley, Emma Reilly, Ph.D., David Topham, Ph.D.
SUNY Geneseo

118. THERMOBACILLUS COMPOSTI: PRODUCTION OF A GLYCOSIDE HYDROLASE FOR UNIVERSAL
BLOOD?
Nadine Husami, Mark Gallo, Ph.D.
Niagara University, Dept. of Biology

119. TRANSCRIPTIONAL ANALYSIS OF BIPOLAR CANDIDATE GENES SUGGEST A ROLE FOR
ENDOPLASMIC RETICULUM STRESS.
Madilyn M. Wiles, Maria Fernanda Juarez Anaya, Douglas J. Guarnieri
Saint Bonaventure University

120. USING BIOINFORMATICS AND STRUCTURAL BIOLOGY TO BETTER UNDERSTAND SKIN DISEASE.
Sakina Ahmed, Dr. Martha Skerrett
Buffalo State College

121. A NEW MODELING ACTIVITY FOR COMPREHENSIVE PCR INSTRUCTION
Callie Donahue, Ashley Adair
Rochester Institute of Technology

122. ALTERNATIVE SPLICING DURING ADIPOCYTE DIFFERENTIATION.
Peter Giangrasso, Dr. Laurie Cook, Dr. Rongkun Shen
The College at Brockport
123. ALTERATION OF AMINO ACIDS WITHIN N-TERMINUS, A-HELIX, B-STRANDS, AND LOOPS TO DETERMINE ERH FUNCTION.
Lily Southivongnorath, Stuart I. Tsubota, Ph.D.
SUNY The College at Brockport

124. CAPTURE OF NANOPARTICLES USING ULTRA-THIN MICROFLUIDICS AND MEMBRANES
Anthony Emanuel, Fernando Ontiveros, James McGrath
St. John Fisher College

125. CELL GROWTH OF CHLAMYDOMONAS REINHARDTII IN RESPONSE TO ANTIOXIDANTS.
Andriana Guzelak, Dr. Noveera Ahmed
St. John Fisher College

126. CHOLESTOSOMETM MEDIATED DELIVERY OF NUCLIEC ACIDS INTO MCF7 CELLS
Daniel Nguyen#, John Cleary#, Robert Grebenok
Canisius College

127. DETECTION OF A NON-CANONICAL SPLICE SITE THROUGH COMPARATIVE ANNOTATION OF THE DROSOPHILA FICUSPHILA MULLER D ELEMENT
Jonathon F. Fleming, Matthew R. Skerritt, PhD
Corning Community College

128. DILUTION OF THE MATRIGEL MATRIX AFFECTS THE FORMATION OF 3D SPHEROIDS IN PROSTATE AND LUNG CANCER CELL LINES.
Nur Hidayah Mohd Rasid1, Tyler C. Anderson1, Jessica Fung1, Rebecca Walden1, Friedrich Griessel1, Hans Schmitthenner2, Irene M. Evans1
Rochester Institute of Technology

129. EFFECT OF GENISTEIN AND ICI ON HISTONE MODIFYING ENZYMES IN OVARIAN CANCER CELLS
Jenna Sauter, Victoria Granger, Lisa Morey
Canisius College

130. EFFECT OF GENISTEIN ON HISTONE MODIFYING ENZYMES IN PROSTATE CANCER CELLS
Jenna Sauter, Victoria Granger, Lisa Morey
Canisius College

131. IDENTIFYING NOVEL COMPONENTS OF FIBROBLAST GROWTH FACTOR RECEPTOR SIGNALING
Eric Eichelberger1, Jason C. Webb1, Mariya Stefinko2, Michael J. Stern2, Cindy Voisine2, and Te-Wen Lo1
Ithaca College

132. IDENTIFICATION OF LncRNA DIFFERENTIAL EXPRESSION DURING ADIPOCYTE DIFFERENTIATION.
Rachel Soeder, Laurie Cook, and Rongkun Shen
SUNY College at Brockport
133. EFFECTS OF MACROMOLECULAR CROWDING ON ENZYME KINETICS.
Alexandrea Rice
SUNY ESF

134. EXPRESSION AND PURIFICATION OF FULL-LENGTH LGN FOR X-RAY CRYSTALLOGRAPHY
Justin Galardi, Kyle Cohen, Brandy Sreenilayam
The College at Brockport, State University of New York

Organic Chemistry and Biochemistry

135. KINETIC STUDY OF ALKYL SUBSTITUTED ACETOACETIC ACIDS IN AQUEOUS SOLUTIONS.
Morgan Springer, William W. Brennessel, and Alexey V. Ignatchenko
St. John Fisher College

136. PICOLINAMIDE AND N-PHENYL-N-PYRIDINYLUREA DERIVATIVES AS LIGANDS FOR ARYL C-N BOND FORMATION.
Mahemuti Xiadiman
SUNY Oswego

137. PRODUCTION OF A SYMMETRICAL KETONE VIA NUCLEOPHILIC CARBONYLATION OF AN ARYLCOPPER.
Jennifer A. Ebert, Dr. Gregory Ebert
State University of New York College at Buffalo State

138. SYNTHESIS AND CHARACTERIZATION OF NOVEL ORGANOSILICON COMPLEXES BEARING THE 8-HYDROXYQUINOLINE N-OXIDE LIGAND.
Kathleen I. Lowry, Bradley M. Kraft, William W. Brennessel
St. John Fisher College

139. SYNTHESIS OF CHALCOGENOPYRYLIUM DYE BASED SERS REPORTERS.
Lauren E. Rosch, Michael R. Detty
University at Buffalo

140. VIBRATIONAL SOLVATOCHROMISM OF PHARMACEUTICAL DRUGS TO INVESTIGATE THE INTERMOLECULAR INTERACTIONS.
Krista Hirsch, Andrea Bills
St. John Fisher College

141. ALLADIUM CATALYZED OXIDATION REACTIONS, USING SULFOLANE AS A GREEN SOLVENT
Eliza Burdick-Risser, Frances Quigley and Karen E. Torraca
Houghton College
142. ANALYSIS OF DRUG FACILITATED CRIMINAL ACTS USING SOLID PHASE EXTRACTION AND LIQUID CHROMATOGRAPHY-MASS SPECTROMETRY.
Kimberly LaGatta, Kerina Heard, Shokouh Haddadi, Vadoud Niri
*SUNY Oswego Chemistry Dept.

143. ANALYSIS OF HIGHER ALCOHOLS IN SCOTCH USING GAS CHROMATOGRAPHY.
Shaun Henderson
*SUNY Oswego Chemistry

144. DEGRADATION OF CH3NH3PBBR3 SINGLE CRYSTAL.
Congcong Wang1, Benjamin Ecker1, Haotong Wei2, Jinsong Huang2, Yongli Gao1
*University of Rochester

145. EXPRESSION AND PURIFICATION OF FULL-LENGTH LGN FOR X-RAY CRYSTALLOGRAPHY
Justin Galardi, Kyle Cohen, Brandy Sreenilayam
*The College at Brockport, State University of New York

146. HEAVY CHALCOGENORHODAMINE DYES FOR VISIBLE-LIGHT-DRIVEN PHOTOREDOX TRANSFORMATIONS.
Jennifer Clark, Dr. Michael Detty
*University at Buffalo

147. IDENTIFICATION OF IN SITU IRON SPECIES IN C-H ACTIVATION REACTIONS.
Annie Stevens, Azwana Sadique, Theresa Iannuzzi, Michael Neidig
*University of Rochester

Inorganic Chemistry

148. LIGHT INDUCED CHEMICAL DEGRADATION AND STRUCTURAL POROSITY OBSERVED IN CH3NH3PBI3 SINGLE CRYSTALS.
Benjamin Ecker, Congcong Wang, Yongli Gao
*University of Rochester, Department of Physics and Astronomy

149. MICROWAVE SURFACTANT-THERMAL SYNTHESIS AND CATALYTIC ABILITY OF [CU3(BTC)2] MOFS.
Tyler Taras and Carly R. Reed
*The College at Brockport, SUNY

150. NOVEL SOLAR CELLS: THE INKJET PRINTED NANOCRYSTALLINE INORGANIC PEROVSKITE FILMS
Benjamin Swanson1, Ian Evans1, Carolina Illie1, Andrew J. Yost2* F. Guzman,3 M. Shekhirev,4 N. Benker,2, S. Sikich,5 A. Enders,6 P. Dowben,2 A. Sinitskii4
*SUNY Oswego

151. PHOTOCATALYTIC HYDROGEN PRODUCTION USING BIOMOLECULAR CATALYSTS.
Saikat Chakraborty, Banu Kandemir, Rebeckah Burke, Todd D. Krauss, Kara L. Bren
*University of Rochester
152. A CONVENIENT SYNTHESIS OF BIODEGRADABLE GLYCOPOLYMERS VIA THIOL-ENE CLICK CHEMISTRY.
Samuel Gerardi, Michael Hardy, John M. Rowley
Houghton College

153. CHELATION AND DYNAMIC BEHAVIOR IN NEUTRAL HYPERCOORDINATE ORGANOSILICON COMPLEXES OF 1-HYDROXY-2-PYRIDINETHIONE.
Erin R. Tiede, William W. Brennessel, Bradley M. Kraft
St. John Fisher College

154. DEVELOPING A SYNTHETIC PATHWAY FOR PRODUCTION OF FLUORESCEIN-LABELED PEPTIDES.
Jack Sherwood, Elana Stennett
Hobart and William Smith Colleges

155. CATALYTIC AND AUTO-OXIDATION OF IRON.
Matthew Michienzi, Alyssa Ryan, Nicholas Burdett, Christopher S. Stoj
Niagara University

Physics & Technology

156. INTERDIGITATED GOLD ELECTRODES COATED WITH GRAPHENE QUANTUM DOTS FOR SENSING CIPROFLOXACIN ANTIBIOTIC
N.N.N. Ahamed1, M. Schrlau2 and K.S.V. Santhanam1
Rochester Institute of Technology

157. HIGH ALTITUDE MUON FLUX, RADIATION SHIELDING, AND SPECTROSCOPY.
We will present 3 posters. The abstracts for the posters are uploaded below
Hobart and William Smith Colleges

158. DEVELOPMENT OF A LOW-COST PLATFORM FOR 3D BIOPRINTING APPLICATIONS.
Connor Jensen, Frenando Ontiveros PhD.
St. John Fisher College

159. INFORMATION CAPACITIES OF LINEAR TIME-IN Variant BOSONIC CHANNELS WITH ADDITIVE GAUSSIAN NOISE
Bhaskar Roy Bardhan, Mohammed Raihan Hossain
SUNY Geneseo

Paleontology

160. SALVAGE PALEONTOLOGY - SILURIAN ROCKS OF UPSTATE NEW YORK
Supravat dey, Kevin Ching, Moumita Das
Rochester Institute of Technology
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Maryann Herman, Biology Department
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Jonelle Mattiacio, Biology Department
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Michael Boller, Biology Department

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