Curriculum Vitae

Ralph Nicholas Salvatore, Ph.D.

Professor of Chemistry

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EDUCATION

• 1990-1994: Bachelor of Science in Chemistry (ACS certified), Iona College, New Rochelle, NY 10805
(*Cumulative GPA = 3.27/4.0*)
Research Advisor: Professor Terrence E. Gavin, Ph.D.
Honors Thesis Title: *"1,4-Conjugate Addition of Organometallic Reagents to α, β-Unsaturated Ketones, Buckminsterfullerene (C60) & the Rugby Ball (C70)"*

• 1994-1996: Master of Science in Organic Chemistry, State University of New York at Stony Brook, Stony Brook, NY 11794. Research Discipline: Physical & Mechanistic Organic Chemistry
(*Cumulative GPA = 3.10/4.0*)
Research Advisor: Professor William J. le Noble, Ph.D.
Thesis title*: "Lewis-Acid Enhanced Face Selection in the Reduction of Adamantanones"*

• 1997-2001: Ph.D. in Organic Chemistry, University of South Florida, Tampa, FL 33620. Research Discipline: Organic Synthesis, Bioorganic Chemistry
(*Cumulative GPA = 4.0/4.0, Summa Cum Laude*)
Research Advisor: Professor Kyung Woon Jung, Ph.D. (currently at University of Southern California)
Dissertation title: *"Cesium Effect: Mechanistic Concepts and Synthetic Applications"*

CURRENT POSITION(S) & TEACHING ASSIGNMENTS

• 2016-present: Chemistry, Physics and Mathematics Teacher, Santa Fe Catholic High School, Lakeland FL 33801.
Courses taught:

- **Regular Chemistry & Lab**

- **Honors Chemistry & Lab**
- **Advanced Placement Chemistry & Lab**
- **Honors Physics & Lab**
- **Regular Physics & Lab**
- **Advanced Topics in Mathematics (Math for College Readiness)**
- **Honors Pre-Calculus**
- **Honors Calculus**

Faculty Moderator for:

- **STEM (Science, Technology, Engineering & Mathematics) Club**
- **ACS Chem Club**
- **Science Olympiad**
- **Science Research & Investigations**

● **2016-present: Adjunct Professor of Chemistry**, Florida Southern College, Department Chair of Chemistry, Biochemistry and Physics, Lakeland, FL 33801

Courses taught:

- **CHE 1111-Principles of Chemistry I & Lab**
- **CHE 1112- Principles of Chemistry II & Lab**
- **CHE 1015- Physiological Chemistry**
- **CHE 2221-Organic Chemistry I & Lab**
- **CHE 2222-Organic Chemistry II & Lab**
- **CHE 3320-Applied Synthesis and Characterization & Lab**
- **CHE 3371-Biochemistry: Structure & Function I**
- **CHE 3373-Biochemistry: Structure & Function Laboratory**
- **CHE 4999-Senior Research**

● **2016-present: Adjunct Professor of Chemistry**, Florida Polytechnic University, Lakeland, FL 33805

Courses taught:

- **CHM 2045: Chemistry 1 (Lecture)**
- **CHM 2045L: Chemistry 1 Laboratory**
- **CHM 4411: Survey of Physical Chemistry**

● **2016-present: Courtesy Professor of Chemistry and Chair of the Chemistry Alumni Society (through USF Alumni Foundation)**, University of South Florida, Tampa, FL 33620

● **2015-present: Professor of Chemistry**, University of New England, Science Prerequisites for Health Professions Program, Portland, ME 04103

Courses taught (Online):

- **CHEM 1005: Medical Biochemistry**
- **CHEM 1010: Medical General Chemistry I**

- **CHEM 1010L: Medical General Chemistry Lab I**
- **CHEM 1011: Medical General Chemistry II**
- **CHEM 1011L: Medical General Chemistry Lab II**
- **CHEM 1020: Medical Organic Chemistry I**
- **CHEM 1020L: Medical Organic Chemistry Lab I**
- **CHEM 1021: Medical Organic Chemistry II**
- **CHEM 1021L: Medical Organic Chemistry Lab II**

• **2016-present: CCC-Online Chemistry Faculty**, Colorado Community College System, 9101 E. Lowry Blvd. Denver, CO 80230

Courses taught (Online):

- **CHE 101 – Intro to Chemistry I/Lab**
- **CHE 102 – Intro to Chemistry II/Lab**
- **CHE 111 – Gen College Chem I/Lab**
- **CHE 112 – Gen College Chem II/Lab**
- **SCI 155 – Integrated Sci. I w/Lab**

PREVIOUS ACADEMIC POSITIONS

• **2013-2015: Dean of Arts and Sciences, Instructor of Chemistry, College Chemical Hygiene Committee Officer (CHO), Director of the Honors Program & Coordinator of College First Year Experience Program; STEM Initiatives Committee Co-Chair**, Pueblo Community College, Pueblo, CO 81004

Duties and Responsibilities as Dean:

- Support the achievement of academic operations within the Division across all campuses and sites by directing the development of programs and curricula *by:*
- Assure delivery of instruction with innovative methods;
- Work collaboratively with administrators specific to student success, campus operations and other academic divisions;
- Assisting the department chairs and coordinators in supervising faculty and staff involved in instruction;
- Serve as the primary contact for faculty and student with concerns regarding academic Issues;
- Ensuring continuous quality improvement through implementation and usage of assessment of student learning outcomes;
- Serve as the Chemical Hygiene Officer (CHO) for the main and branch campuses;
- Chair of the IRB (Institutional Review Board)/HSC (Guideline for use of Human Subjects, Laboratory Animals Committee);
- Member of CEMT Committee (College Emergency Management Team);
- Adhere to the governing rules of CCCS, the fiscal rules of the State of Colorado, individual accrediting bodies, and CDHE by:

• Monitor all activities required by college, state and federal guidelines;
• Monitor all activities required for program accreditation, program reviews, credentialing requirements and CTE local plans;
• Assure compliance with expenditure reports and equipment inventory;
• Coordinating and assisting the department chairs in planning and administering the Division & departmental budgets;
• Pursuing grants and alternative funding sources to support the division programs;
• Oversee the preparation of biweekly/monthly employment contracts/teaching loads;
• Oversee a minimum of $5 million budget composed of 300 full time faculty, 600 adjunct faculty and 100 classified staff;
• Direct the responsibility for both AQIPT and CTE Accreditation process;
• Participated in Title IX Financial Audit;
• Support college initiatives within the division and between other entities across the campuses;
• Conducted department chair and division meetings;
• Participate in all faculty meetings;
•Serving as an administrative liaison to assigned faculty or *ad-hoc* committees;
• Attending and participating in all required meetings, training sessions or other college-wide related functions;
• Ensure college operations are supported by communication and support from the Arts and Sciences Division by:

- Informing the College President of division program, financial and personnel standing;
- Serve in any other capacity to perform duties and responsibilities assigned by the College President;
- Participate in community programs, including civic, charity, or professional organizations that further the mission of the college;
- Oversee the following Departments: English & Communications, Social Sciences, Crimi-

inal Justice, Early Childhood Education, Education, Library Technician Program, Achieving Academic Assessment, Reading, American Sign Language, Fine Arts and Humanities, Mathematics and Biological & Physical Sciences.

Duties and Responsibilities as Chemical Hygiene Officer (CHO):

•Serve as the Chemical Hygiene Officer (CHO) for the College which includes the responsibility for 5 satellite locations;
•Work with administrators and other employees to develop and implement appropriate chemical hygiene policies and practices and institute a chemical hygiene plan for all locations both academic labs and services which use chemicals on campus;
•Monitor procurement, use and disposal of chemicals used in the lab;
• Review all P.O.'s that include chemical reagents;
• Review all lab procedures, including all new procedures to be introduced;
• Ensure that staff training and facilities are adequate for materials ordered;
• Ensure all MSDS forms are available and current;
• See that appropriate audits are maintained;

- Help building safety chairperson, principals and department chairs to develop precautions and adequate facilities;
- Continue knowledge of the current legal requirements concerning regulated substances in academic & research laboratories;
- Seek ways to improve the chemical hygiene plan;
- Ensure that workers know and follow the chemical hygiene rules;
- Provide adequate training for all workers regarding safety, chemical hygiene and chemical hazards;
- Determine the appropriate protective equipment required; ensure that it is available and in good working order;
- Institute an electronic inventory system using bar codes to track chemicals on campus, chemical amounts, chemicals reorders, etc.
- Oversee hazardous waste removal for the college (which include: lab chemicals, house-keeping chemicals, gas cylinders, paint solvents, paints, etc.)
- Provide regular, formal, chemical hygiene and housekeeping inspections:
    - Stockrooms and storerooms
    - Lab ventilation
    - Sinks and clean-up areas
- Perform regular inspection of all safety and emergency equipment to ensure it is in good working order:
    - Fume hoods
    - Fire equipment
    - Eye stations and deluge showers
    - Protective apparel
    - Maintain records:
        - Training - Inspections
        - Medical - Inventory
    - Up-to-date MSDS sheets (both hard copies & electronic version)

Courses taught:

- **CHE 101 – Intro to Chemistry I/Lab**
- **CHE 102-Intro to Chemistry II/Lab**
- **CHE 109-Intro General, Organic & Biochem**
- **CHE111-Gen College Chem I/Lab**
- **CHE112-Gen College Chem II/Lab**
- **CHE 205-Intro Organic Chemistry w/Lab**
- **CHE 211-Organic Chemistry I w/Lab**
- **CHE 212-Organic Chemistry II w/Lab**
- **CHE 215- Soil & Water Chemistry w/Lab**
- **CHE 280-Internship**
- **CHE 285-Intependent Study (Honors Research in Chemistry)**
- **PHT 115-Pharmacology I**

- **PHT 118-Pharmacology II**
- **PAP 221- Biochemistry and Cell Biology**
- **SCI 155-Integrated Sci. I w/Lab**

● **2011-2016: Adjunct Professor of Chemistry & Biochemistry,** Mercy College, Dobbs Ferry, NY 10522 (online as needed)**.**

Courses taught:

- **BIOL 226/CHEM 226: Elements of Biochemistry (online and F2F)**
- **CHEM 110: Introduction to Chemistry**
- **CHEM 122: Foundations in Chemistry**
- **CHEM 145 -Biochemistry of Addiction**
- **CHEM 160: General Chemistry I Lecture**
- **CHEM 160A: General Chemistry Laboratory**
- **CHEM 161: General Chemistry II Lecture**
- **CHEM 161A: General Chemistry II Laboratory**
- **CHEM 260: Organic Chemistry I Lecture**
- **CHEM 260A: Organic Chemistry I Laboratory**
- **CHEM 261: Organic Chemistry II Lecture**
- **CHEM 261A: Organic Chemistry II Laboratory**
- **CHEM 354: Biochemistry**
- **SINC 110: The Principals of Science I**
- **SINC 111: The Principals of Science II**
- **SINC 161: Forensic Science I**
- **SINC 162: Forensic Science II**
- **VETC 220; Pharmacology and Toxicology**

● **2006-2013: Dean of the College of Natural and Social Sciences, Department Chair and Full Professor of Chemistry, Director of the Graduate Ph.D. Program in Chemistry & Biochemistry and Pre-Health Advisor,** Department of Chemistry, Lehman College-The City University of New York, Bronx, NY,10468 (***Tenure granted*: September 2006**).

Duties and Responsibilities as Dean:

- Oversee planning for the School of Natural and Social Sciences, working closely with the department chairs, faculty, and other college administrators to develop short-term, mid-range, and long-term plans (including planning for phase 2 of the New Science Building) for the School;
- Promote academic excellence through scholarly development, curricular development, and student success initiatives as well as through program reviews, assessments, and accreditation;

- Provide support and guidance to the School's department chairs and mentor new department chairs;
- Encourage and support high quality teaching, faculty research, creative and professional activities, and the solicitation of external funding for research; aggressively lead an expanded advancement effort and actively pursue public/private partnerships;
- Manage the financial resources of the School through effective budget planning and the assessment and management of resource allocations to support programs of high quality central to the mission of the School;
- Collaborate with the School of Education, the School of Health and Human Services, the School of Arts and Humanities, and other academic and administrative elements of the College to implement the College's Strategic Plan for STEM;
- Work with the appropriate academic departments to recruit, support, and retain STEM faculty with active research interests and success in the receipt of research grants;
- Strengthen partnerships with schools, hospitals, corporations, and cultural and science-rich institutions to stimulate new areas of research and scientific discovery and to enhance the profile of Lehman College as a center of excellence in the sciences;
- Interact with the social science departments of the School to advance scholarly development, success in achieving external support, student success initiatives, and collaboration with public and private agencies and community groups;
- Work with the Department of Economics and Business and other College participants in the further development and evolution of the undergraduate and graduate programs in the field of business;
- Demonstrated experience and commitment to shared governance;
- Experience managing budgets and personnel in a higher education environment;
- Attraction of external funding including grants and gifts;
- Aiding in developing and implementing strategic plans;
- Oversee planning decisions to assessment and curriculum development;
- Promote the advancement and conducting of research and scholarly activity;
- Successful implementation and advancing/developing STEM disciplines;
- Successful experience developing industry and/or community partnerships;
- Experience working in a collective bargaining environment;
- Fostering K-14 partnerships;
- Oversee tenure and promotion decision-making processes;
- Experience in a comprehensive urban university;
- Oversee and chair the building/implementation of a $70 million, 69,000 sq. ft. building which features a blend of teaching, research, and administrative space for a New Green Science Hall;
- Oversee and implement the renovations of both chemistry student laboratories and faculty research laboratory space in Davis Hall;
- Supervision of all department chairs, program directors and staff, and oversight of faculty and staff search and hiring process within the school, as well as the development, mentoring, and evaluation of full-time and part-time faculty;
- Cultivation and support of faculty opportunities for research, scholarship, and service to the community;

- Identification and pursuit of funding opportunities related to mission and goals, as well as development and leadership of the school's advisory board;
- Development and annual assessment of school-wide retention and academic quality indicators;
- Implementation of outcomes assessment measures in collaboration with faculty, department chairs, and program director;
- Oversight of all accreditation activities within the school;
- Oversight of marketing, recruitment and retention efforts with department chairs and program directors in coordination with enrollment management;
- Development of effective, efficient, and student-centered scheduling principles and processes;
- Development and coordination of the school's online program offerings;
- Development of relationships with external stakeholders, in collaboration with the Provost and the Office of Institutional Advancement;
- Assuring the full and appropriate functioning of school faculty committees;
- Adjudication of student/faculty and faculty/chair/program director disputes within the guidelines of the Faculty Handbook and relevant student manuals;
- Oversee 13 academic departments: Anthropology; Biological Sciences; Chemistry; Economics and Business; Earth, Environmental, and Geospatial Sciences; Health Sciences; Mathematics and Computer Science; Nursing; Physics and Astronomy; Political Science; Psychology; Sociology; and Social Work;

Duties and Responsibilities as Department Chair:

- Maintained an active research program; a competitive grants package provided support of continued research productivity;
- Taught lower and upper division undergraduate chemistry courses;
- Work with faculty, staff and administration to achieve departmental goals;
- Encourage teamwork and collegiality;
- Build consensus in the department;
- Communicate effectively with all department faculty, staff and university administration;
- Advocate effectively for the interests and needs of the department's faculty, staff and students;
- Help guide new faculty as they establish themselves in the department and in the chemistry community;
- Recognize and capitalize on the strengths and interests of the faculty and staff;
- Foster collaborations both within the department and with other departments/ universities;
- Respond to changes in chemistry and related fields;
- Provide leadership in curriculum development;
- Respond to changes in undergraduate enrollments;
- Work with faculty to shape and implement the department's 5-year plan for continuing on the upward trajectory supported by a recently completed Research Corporation Departmental Development grant;

- Shovel ready Construction of a New Green Science Building (2008). I served as the Chair of the renovations building committee;
- Chair of Chemical Hygiene and Safety Committee (2008-2010);

Courses taught:

- **CHE 104: Introductory Chemistry I**
- **CHE 105: Introductory Chemistry Laboratory I**
- **CHE 166: General Chemistry I**
- **CHE 167: General Chemistry Laboratory I**
- **CHE 168: General Chemistry II**
- **CHE 169: General Chemistry Laboratory II**
- **CHE 232: Organic Chemistry Lecture I**
- **CHE 233: Organic Chemistry Laboratory I**
- **CHE 234: Organic Chemistry Lecture II**
- **CHE 235: Organic Chemistry Laboratory II**
- **CHE 320: Medicinal Chemistry**
- **CHE 327: Structure Determination and Organic Analysis**
- **CHE 391: Chemical Investigations**
- **CHE 444: Biochemistry I**
- **CHE 446: Biochemistry II**
- **CHE 447: Biochemistry Laboratory**
- **CHE 448: Advanced Organic Chemistry**
- **CHE 449: Instrumental Analysis**
- **CHE 450: Chemistry Seminar**
- **CHE 464: Green Chemistry**
- **CHE 491: Chemical Research**
- **CHE 548: Special Topics in Modern Organic Chemistry (*graduate level*)**
- **CHE 549: Instrumental Methods of Analysis (*graduate level*)**
- **BIOCHEM U820: Research toward the Doctoral Dissertation (*graduate level*)**

- **2006-2013: Adjunct Full Professor of Chemistry**, Department of Chemistry, Iona College, New Rochelle, NY 10801 (Research Collaboration-present)

Courses taught:

- **CHM 109. General Chemistry I (with lab)**
- **CHM 110. General Chemistry II (with lab)**
- **CHM 125. Criminalistics Laboratory 1**
- **CHM 209. Organic Chemistry I (with lab)**
- **CHM 210. Organic Chemistry II (with lab)**

- **CHM 320. Chemical Synthesis Laboratory**
- **CHM 322. Instrumental Analysis**
- **CHM 401. Advanced Organic Chemistry**
- **CHM 409. Computational Chemistry**
- **CHM 417. Inorganic Chemistry**
- **CHM 418. Inorganic Chemistry II**
- **CHM 420. Biochemistry Laboratory**
- **CHM 421. Biochemistry I**
- **CHM 422. Biochemistry II**
- **CHM 425. Chemical Safety**
- **CHM 441. Research 1**
- **CHM 442. Research 2**
- **CHM 450. Seminar**
- **CHM 451. Seminar in Science, Technology and Society**
- **STL 100. Scientific and Technological Literacy: Matter, Energy, Life and Systems**

● **2005-2006: Associate Professor of Organic and Green Chemistry,** Department of Chemistry, University of Massachusetts Boston-Harbor Campus, Boston, MA 02125

Courses taught:

- **CHEM 115 Chemical Principles I Lecture**
- **CHEM 116 Chemical Principles II Lecture**
- **CHEM 130 Physiological Chemistry**
- **CHEM 145 - Biochemistry of Addiction (and Lab)**
- **CHEM 251 Organic Chemistry I Lecture**
- **CHEM 252 Organic Chemistry II Lecture**
- **CHEM 255 Organic Chemistry I Laboratory**
- **CHEM 256 Organic Chemistry II Laboratory**
- **CHEM 351 Organic Qualitative Analysis**
- **CHEM 369 Chemical Structure**
- **CHEM 379 Chemical Structure Lab**
- **CHEM 458 Medicinal Chemistry (graduate)**
- **CHEM 471 Introduction to Green Chemistry (graduate)**
- **CHEM 621 Organic Synthesis & Mechanisms (graduate)**
- **CHEM 622 Physical Organic Chemistry (graduate)**
- **CHEM 631 Chemical Toxicology**
- **CHEM 641 Chemistry and Biochemistry Education Research on Learning, Learning Environments, and Teaching**

◦ **CHEM 651 Spectrometric Identification of Organic Compounds**

◦ **CHEM 658 Medicinal Chemistry (graduate/co-listed with CHEM 458)**

◦ **CHEM 661 Analytical Instrumentation**

◦ **CHEM 671 Introduction to Green Chemistry (graduate/co-listed with CHEM 471)**

◦ **CHEM 681 Medical Biochemistry**

◦ **CHEM 741: Heterocycles**

◦ **CHEM 899 Dissertation Research**

● **2005-2006: Associate Member for the Center for Green Chemistry,** University of Massachusetts Boston-Harbor Campus, Boston, MA 02125

● **2005-2006: Associate Member of Dana-Farber Cancer Institute**, 450 Brookline Avenue, Boston, MA 02215

Courses taught:

◦ **BIO 2020/CHM 2020: Special Topics: Biology of Cancer**

◦ **BIO 2021/CHM 2021: Special Topics: Chemistry in Life: AIDS Drug Discovery & Development**

● **2001-2005: Assistant Professor of Organic Chemistry, Pre-Health Advisor** Department of Chemistry, Western Kentucky University, Bowling Green, KY 42101

Courses taught:

◦ **CHEM 120 - College Chemistry I**

◦ **CHEM 121 - College Chemistry I Lab**

◦ **CHEM 222 - College Chemistry II**

◦ **CHEM 223 - College Chemistry II Lab**

◦ **CHEM 314 - Introduction to Organic Chemistry**

◦ **CHEM 330 - Quantitative Analysis**

◦ **CHEM 340 - Organic Chemistry I**

◦ **CHEM 341 - Organic Chemistry I Lab**

◦ **CHEM 342 - Organic Chemistry II**

◦ **CHEM 343 - Organic Chemistry II Lab**

◦ **CHEM 399 - Research Problems in Chemistry**

◦ **CHEM 435 – Instrumental Analysis**

◦ **CHEM 440 - Introduction to Synthetic Organic Methodology**

◦ **CHEM 441 - Advanced Organic Chemistry**

◦ **CHEM 446 - Biochemistry**

◦ **CHEM 447 - Biochemistry Laboratory**

◦ **CHEM 467 - Biochemistry II**

◦ **CHEM 476 - Advanced Investigations in Chemistry Lab**

◦ **CHEM 475 - Toxicology (special topics course, independent study)**
◦ **CHEM 540 - Organic Reactions (graduate)**
◦ **CHEM 541- Advanced Organic Chemistry (graduate)**
◦ **CHEM 560 - Chemical Agents and Explosives (graduate)**
◦ **CHEM 562 - Advanced Biochemistry (graduate)**
◦ **CHEM 570 – Lecture Demonstration Techniques (graduate)**
◦ **CHEM 572 - Detection/Analysis of Chemical Agents and Explosives Lecture (graduate)**
◦ **CHEM 573 - Detection/Analysis of Chemical Agents and Explosives Laboratory (graduate)**
◦ **CHEM 580 - Chemical Skills (graduate)**
◦ **CHEM 581 – Spectroscopy (graduate)**
◦ **CHEM 588 – Research Proposals (graduate)**
◦ **CHEM 592 - Remediation of Chemical Agents (graduate)**
◦ **CHEM 593 - Remediation of Chemical Agents Lab (graduate)**
◦ **CHEM 595 – Scientific Writing in Chemistry (graduate)**
◦ **HON 300 - Ethics in Scientific Research (Honors)**
◦ **CHEM 596 – Practicum Research Experience in Chemistry (graduate)**
◦ **CHEM 598 – Graduate Seminar (graduate)**
◦ **CHEM 599 – Thesis Research / Writing (graduate)**
◦ **CHEM 600 - Maintaining Matriculation (graduate)**
◦ **CHEM 799 - Doctoral Research/Chemistry (graduate)**

● **2001-2005: Joint Faculty Member in the Materials Characterization Center,** (Combustion Laboratory, the Coal and Fuel Laboratory, the Thermal Analysis Laboratory and the Trace Organics Laboratory) and ***The Applied Research and Technology (ARTP) Program of Distinction,*** Western Kentucky University, South Campus, Bowling Green, KY 42101

◦ **CHEM 590 - Coal Chemistry (graduate)**
◦ **CHEM 591- Coal Chemistry Laboratory (graduate)**

● **1997-2001: Teaching and Research Assistant, Organic and Medicinal Chemistry** Department of Chemistry, University of South Florida, Tampa, FL 33620 and Drug Discovery Program, H. Lee Moffitt Cancer Center & Research Institute, 4202 E. Fowler Avenue, Tampa, FL 33620-5250

● **1997-2001: Research Assistant, Drug Discovery Program, H. Lee Moffitt Cancer Center & Research Institute, Organic and Medicinal Chemistry** 4202 E. Fowler Avenue, Tampa, FL 33620-5250

● **1996-1997: Chemistry, Physics and General Science Teacher and Department Chair,** Science Department, Sacred Heart High School, Yonkers, NY, 10703
Courses Taught:

- **Science 9 wi/ lab (General Science)**
- **Academic Earth Science wi/lab (Regents)**
- **Academic Chemistry wi/ Lab (Regents)**
- **Academic Physics with Lab (Regents)**
- **Human Anatomy and Physiology with lab (virtual cadaver prosection and cat dissections)**
- **Advanced Placement Biology**
- **Advanced Placement Chemistry**
- **Advanced Placement Physics AB & BC**
- **Sports Medicine**
- **Sequential Mathematics I (Algebra) (Regents)**
- **Sequential Mathematics II (Geometry) (Regents)**
- **Sequential Mathematics III (Trigonometry) (Regents)**
- **Pre-Calculus**
- **Calculus (Standard, Honors)**
- **Math 12 (for seniors)**
- **Health and Nutrition**
- **Advanced Placement Calculus**
- **Computer Science I**
- **Criminalistics**
- **Advanced Placement Environmental Science**
- **Oceanography**
- **Introduction to Scientific Research**
- **Pre-Engineering**

● **1995-1996: Organic Chemistry Laboratory Coordinator,** Department of Chemistry, State University of New York at Stony Brook, Stony Brook, NY 11794
Courses Taught:

- **CHE 321: Organic Chemistry I**
- **CHE322: Organic Chemistry II**
- **CHE 327: Organic Chemistry Laboratory**
- **CHE 333 Organic Chemistry Honors Lab I**
- **CHE 334: Organic Chemistry Honors Lab II**
- **CHE 341: Organic Chemistry Honors I**
- **CHE 342: Organic Chemistry Honors II**
- **CHE 345: Structure and Reactivity in Organic Chemistry**
- **CHE 346: Biomolecular Structure and Reactivity**

◦ **CHE 348: Reaction Mechanisms in Organic Chemistry**

◦ **CHE 383: Introductory Synthetic and Spectroscopic Laboratory Techniques**

◦ **CHE 384: Intermediate Synthetic and Spectroscopic Laboratory Techniques**

◦ **CHE 459: Write Effectively in Chemistry**

◦ **CHE 487: Research in Chemistry**

◦ **CHE 593: Chemical Demonstrations**

◦ **CHE 610: Practicum in Teaching**

◦ **CHE 611: Practicum in Teaching**

Duties and Responsibilities as Coordinator:

Oversee the Organic Chemistry laboratory curriculum including innovated course development and selection of experiments in collaboration with the Organic Chemistry faculty and other teaching faculty. Acted as the primary supervisor for all teaching assistants (organic), provided training and organized meetings. In addition, oversee safety regulations and work with TA's and staff to provide a safe laboratory environment. Supervise staff to organize supplies and equipment for the organic chemistry laboratories.

● **1994-1996: Teaching and Research Assistant, Organic Chemistry** Department of Chemistry, State University of New York at Stony Brook, Stony Brook, NY 11794

● **1992-1994: Undergraduate Teaching and Research Assistant, Organic Chemistry** Department of Chemistry, Iona College, New Rochelle, NY 10801

INDUSTRIAL APPOINTMENTS

● **1987-1990: Assistant Environmental Organic Chemist**, Environmental Organic Chemistry Laboratory, Westchester County Department of Laboratories and Research, 10 Dana Road, Valhalla, NY, 10595

Duties and Responsibilities as Environmental Organic Chemist:

• Performed services for environmental organic chemistry include gas and liquid chromatographic and mass spectrometric analyses of volatile and semi-volatile compounds utilizing over 25 analytical methods to identify and quantitate more than 400 organic compounds including but not limited to:

- PCB's
- Herbicides
- Pesticides
- Volatile organics including gasoline

These compounds could be present in areas where there is industry, agriculture, small businesses and service stations. The types of samples for submitted for analysis generally included**:**

- Drinking Water (well & public supply)
- Raw Water (lakes, streams, ponds, rivers)
- Wastewater
- Soils & Solids
- Hazardous waste

ADMINISTRATIVE & PROFESSIONAL EXPERIENCES (Partial List)

Pueblo Community College (2013-2015)

1. Citizens' Advisory Commissions Board for the Pueblo Chemical Depot
2. President's Cabinet
3. HIPAC Committee Liaison (Shared Governance Committee)
4. Mentoring Committee Administrative Liaison
5. Salary and Load Committee Liaison
6. Chair of the Institutional Review Board at PCC
7. Colorado State Wide Dean's Committee Chair Elect
8. Active Participant between Community Partnerships, Selected examples:
    - St. Mary Corwin Partnerships with PCC
    - The Center for American Values
    - The Steel Works Museum
    - MOU with the *Santa de Cristo Art Center*
    - MOU with Catholic Charity Works
9. Serve as the Chemical Hygiene Officer for the entire college (5 campuses)
10. Search Committee Chair for Criminal Justice Faculty and department chair hire
11. Responsible for updating all Articulation Agreements between PCC and other Colorado Colleges (both 2 and 4 yr.)
12. Serve on Curriculum and Academic Standards Committee
13. Created and implemented the AAS in Chemical Technology (CHMT) Track at PCC
14. Created and implemented the AAS track in Water Quality Management (WQM) at PCC to serve as the hub for Southern Colorado
15. Created and established a Gross Anatomy Laboratory with a human cadaver in conjunction with St. Mary Corwin (MOU with PCC)
16. Established an Experimental Psychology Laboratory for AA and AS majors in Psychology
17. Created a Modern Languages Laboratory for Humanities Department to increase majors in foreign languages
18. Supported Special topics classes across divisions (e.g. Welding and Art Students)
19. Served on Title V grant panel
20. Served on TRIO grant renewal panel
21. Implemented CHE 275 Independent Research in Chemistry with STEM students
22. Chair of PCC STEM Initiatives Committee (2013-2015)

23. PCC Tenure and Promotion Committee
24. Created and implemented a STEM Education Center with state of the art-technology (e.g. Light Boards, Green boards, Robotics, etc.)
25. Created and implemented the AAS track in Biotechnology (BIOT) to begin Spring 2016
26. Association of American Colleges & Universities

Lehman College-CUNY (2006-2013)

1. University Senator (2006-2011)
2. Member-President Bell Scheduling Committee-University Scheduling Committee
3. Promotion and Budget Committee (P&B)
4. Executive Committee
5. Chair-College Chemical Hygiene Safety Committee (2006-2011)
6. Member of Dean of Library Search Committee
7. Member on Building Renovation Committee: Construction of New "Green" Science Center and Renovation of Davis Hall Science Facility
8. Tenure and Promotion Committee, Division of Natural and Social Sciences
9. Graduate Curriculum Committee
10. Undergraduate Curriculum Committee
11. College Wide-Faculty Tenure and Promotion Committee
12. Member-Science Curriculum Committee-Creation of a B.S. Interdisciplinary Environmental Science (Green Chemistry Component)
13. Reviewer and Panel Judge for PSC-CUNY Grant Proposals-Organic Chemistry Division
14. Provost and Vice President for Academic Affairs Search Committee
15. Teacher Academy Chemistry Advisory Committee
16. Faculty Promotion and Budget Committee (Faculty Promotion & Budget Committee)
17. New York State United Teachers Association (NYSUT)
18. Middle States Accreditation Committee (Lehman College)
19. Health Science Advisor-Chemistry
20. Member of Equivalence and Wavier Committee (one of four members) appointed by Office of the Provost
21. Search Committee Chair for Associate/Assistant Professors (Chemistry Department), 2006-2007
22. Faculty Search Committee Chair for Associate and Assistant Professors (Chemistry Department), 2007-2008, Organic Chemistry, Inorganic and Analytical Chemistry (Lehman College)
23. Search Committee Chair-College Lab Technicians, 2006-2007(Lehman College)
24. Search Committee Chair-Adjunct Professors, 2006-2008 (Lehman College)
25. Chair of Lecturer Searches (Full/Part time) 2006-2008 (Lehman College)
26. Chair of Search Committee for numerous Departmental Office Assistant Hires
27. Member-Chief Library Search Committee, 2006-2007
28. Member-Provost Search Committee, 2006-2007

29. Department representative for undergraduate and graduate students (2006-2008)
30. Inter-Lab Group Meetings with Plant Sciences Ph.D. Subprogram, Dept. of Biological Sciences, Lehman College, The City University of New York, 2006-2008
31. Member of SI Committee: US Department of Education, Title V Grant for Supplemental Instruction &Technology
32. Moderator and Conference Organizer for the Arthur Sweeney Memorial Lecture (2006-2008)
33. Participation in the CUNY Graduate Center
34. Member-CUNY Research Foundation (CUNY-RF)
35. Conduct all Department Faculty and Promotion & Budget Committee Meetings
36. Department Budgets/Ordering
37. Executive Committee
38. Assignment of Faculty, Adjuncts, Instructors, Graduate Student Teaching Schedules
39. Supervision of Undergraduate and Graduate Curriculum

University of Massachusetts- Boston (2005-2006)

1. Co-Coordinator Green Chemistry Program with Professor Tim Dransfield, Ph.D.
2. Member of The Center for Green Chemistry at UMass Boston
3. Chemistry Seminar Program Committee Liaison
4. Member of Organic Chemistry Division
5. Doctoral Graduate Committee (Ph.D.) in Green Chemistry
6. Associate Member of the Dana-Farber Cancer Center/Harvard University
7. Graduate Committee (M.S & Ph.D.-Green Chemistry)
8. External reviewer (*ad-hoc* reviewer) of graduate thesis from external universities

Western Kentucky University (2001-2005)

1. Chemistry Graduate Committee
2. Instrument Committee (Co-PI on High-Field JEOL NMR)
3. Search and Screening Committee for Inorganic Chemist (Assistant Professor Level)
4. Pre-Professional (Pre-Med, Pre-Dentistry, Pre-Vet, etc.) Committee
5. Faculty Member Material Characterization Center (MCC)
6. American Chemical Society Chemistry Club Faculty Advisor, Western Kentucky University-Honorable mention awards, 2001-2003
7. Instrument Committee
8. Member Graduate Thesis Committees (M.S. and Ph.D. in Green Chemistry)

SCHOLOARLY ACTIVITIES

1. ACS Chemistry Department-Faculty and Curriculum Advisor, 2007 (Lehman College-Department Accreditation)
2. Curriculum Committee for the B. A. Degree in Chemistry, Teachers Academy (Lehman College)
3. Curriculum Committee for the B.A. Degree in Environmental Science (Lehman College)

4. New York State Certified Licensed Faculty Member Representative to Handle and Proper Storage and Safety of Various Class Narcotics for Forensic Chemistry Courses, Department of Chemistry, Lehman College, issued by US Department of Justice, 2007-2011
5. Chair-Chemistry Department Chemical Hygiene Safety Program, 2006-2011
6. Chair and Moderator for the Arthur Sweeney Lecture Series and Symposium, Chemistry Department, 2006-2008
7. Chairman of Organic Chemistry Oral Session American Chemical Society Boston, MA August, 2007, "New Reactions and Methodology"
8. National Organic Symposium, Duke University, Raleigh Durham, NC, 2007
9. Chairman of Organic Chemistry Oral Session American Chemical Society Atlanta, GA, August, 2007
10. Chairman of Asymmetric Reactions and Syntheses, Organic Chemistry Oral Session American Chemical Society 232nd San Francisco, CA, 2006
11. Appointment to the Editorial Board of Referees for the Journal *ARKIVOC* (Archive for Organic Chemistry, ISSN: 1424-6369), April, 2006
12. Chairman of the Heterocycles and Aromatics Division, Organic Chemistry Oral Session American Chemical Society 231st National Meeting, Atlanta, GA, March 24, 2006
13. External Examiner for Ph.D. Dissertation Committee for Ms. Jennifer O'Donnell, University of Guelphi, Canada, September 1, 2005
14. Chairman, Oral Session for the Phosphine Chemistry Division, 16th International Conference on Phosphorus Chemistry (ICPC 2004), Birmingham, UK, 2004
15. External Examiner for numerous grant proposals for National Science Foundation (NSF) and the Petroleum Research Fund (ACS/PRF), 2005-present
16. Pre-Medical, Pre-Pharmacy, Pre-Vet and Pre-Optometry Committees, Western Kentucky University, UMASS Boston, and Lehman College, 2003-present
17. External Examiner for Doctor of Philosophy degree entitled "Synthesis, Structure and Utility of Organophosphonates and Related Compounds" by Mr. K. Senthil Kumar, University of Hyderabad, P.O. Central University, Hyderabad-500045, India
18. Associate Membership of the Graduate Faculty Council at Western Kentucky University, 2002- 2004
19. Member, Materials Characterization Center (MCC), Western Kentucky University, 2001-2004
20. American Chemical Society Chemistry Club Faculty Advisor, Western Kentucky University. Honorable mention awards, 2001-2003
21. Organic Chemistry Laboratory Coordinator, Department of Chemistry, State University of New York at Stony Brook, 1996
22. Teaching & Research Assistant, Department of Chemistry, State University of New York at Stony Brook, 1994-1996
23. Undergraduate Teaching Assistant, Department of Chemistry, Iona College, 19921994
24. Research Assistant, Department of Chemistry, Iona College, 1993-1994

EDITORIAL BOARD SERVICE

•*Tetrahedron Letters*
•*Tetrahedron*
•*Synlett*
•*Phosphorus, Sulfur, and Silicon and the Related Elements*
•*Synthetic Communications*
•*The Journal of Sulfur Chemistry*
•*Chemtracts (Organic Chemistry)*
•*The Journal of Chemical Education*
•*Letters of Organic Chemistry*
•*The Journal of Organic Chemistry*
•*The Journal of Combinatorial Chemistry*
•*Molecules*
•*Organic Preparations & Procedures International*
•*Organic Letters*
•*Chemical Communications*
•*Catalysis Communications*
•*Organometallics,*
•*Journal of Undergraduate Chemistry Research*
•*Heterocyclic Letters*
•Editorial Board for *ARKIVOC-Online Journal of Organic Chemistry*
•*Heterocyclic Communications*
•*Research Letters in Organic Chemistry*
•*The Journal of Chemistry*
•*Advances in Chemistry Research*
•*Advances in Chemistry*
•*Synthesis*
•*Synthetic Communications*
•*Biomolecules*
•*Sustainability*
•*Chem Texts*
• *RSC Advances*
• *Journal of Materials Chemistry B*
• *New Journal of Chemistry*
• *Molecular BioSystems*
• *Pharmaceuticals*

ACCREDITATION EXPERIENCE(S)

- Middle States Accreditation
- SACS (Southern Association of Colleges and Schools)
- AQIP (Academic Quality Improvement Program accredited by the North Central Association of Colleges and Schools

RESEARCH INTERESTS

Development of novel synthetic methodologies and their applications to biology such as natural products and the synthesis artificial biomolecules; Mechanistic studies & structure elucidation of unknown materials are also investigated. These projects in my lab include:
Medicinal chemistry: emphasis on the synthesis of new drugs and drug delivery agents to aid in the treatment of human diseases for cancer, Parkinson's, Alzheimer's disease and HIV || (e.g. peptidomimetics and other artificial biomolecules) || ***Green chemistry*** and reactions in environmentally benign media (e.g. aqueous reactions, and ionic media || ***Pre-biotic chemistry*** || ***Bio-organic chemistry*** || ***Physical and Mechanistic organic chemistry*** || ***Heterocyclic chemistry*** || ***Organometallic chemistry*** *&* ***Coordination Chemistry***; || ***Supramolecular chemistry*** (macrocycle synthesis for use as metal extractants, calixarenes, cavitands, etc.) || ***Spectrometric elucidation of organic compounds*** || ***Protein & peptidiomimetic synthesis*** || ***Biochemistry*** || **nucleic acid & oligionucletide chemistry** || ***carbohydrate chemistry*** || ***Chemical Education*** || ***Chemical History*** || ***STEM and Scientific, Technology and Literacy (STL) in Society.***

SOCIETIES & COMMITTES

1. American Chemical Society (ACS), Divisions of Organic, Medicinal, and Fluorine Chemistry (1989-present)
2. ACS Younger Chemists Committee (1989-1992)
3. International of Union of Pure and Applied Chemistry (IUPAC) (1990-1994)
4. American Association for the Advancement of Science (1994)
5. Phi Kappa Phi (1998)
6. Sigma Xi (2001-present). WKU and Lehman College Chapters
7. Kentucky Academy of Sciences (KAS) (2001-2005)
8. Massachusetts Teachers Association (MTA) (2005-2006)
9. Who's Who, 2007 (4 awards)
10. Empire Who's Who Among Executives and Professionals (2004-2007 Honors Edition and VIP Edition-2007)
11. International Society of Heterocyclic Chemistry (2006)
12. Dana-Farber/Harvard Cancer Center (2006)
13. H. Lee Moffitt Cancer Center and Research Institute, Drug Discovery Program, (1998-2001)
14. Center for Green Chemistry-UMASS Boston (2005-2006)
15. New England American Chemical Society Section (2006)
16. New York Local Section of American Chemical Society Section (2006-present)
17. International Society of Heterocyclic Chemistry (ISHC) (2005-present)
18. Lehman College Committee on Middle State Accreditation (2007)
19. 2002-03 ACS STUDENT AFFILIATE CHAPTER RECOGNITION, Western Kentucky Univ., Bowling Green; Michelle McCombs; Advisor: Dr. Ralph N. Salvatore

20. Institute of Creation Research
21. American Chemical Society (ACS) Division of Chemical Education (2011)
22. ACS Division of Fluorine Chemistry (2008-2010)
23. Research Gate
24. Faculty Advisor for ACS PCC Chapter (President) 2014-present
25. Faculty Advisor for Alpha Chi Sigma (PCC chapter with CSU-Pueblo) 2014present
26. Faculty Co-advisor for STEM Club at PCC (2014-pres)

SELECTION OF REPRESENTATIVE PUBLICATIONS

1. **Salvatore, R.N.** "Perspectives on the Chemistry of Group 5 Heterobenzenes" (*Tetrahedron,* submitted*)*
2. **Salvatore, R.N.** "Overview of Silyl Protecting Groups for Primary and Secondary Amines" (*Heterocycles,* submitted*)*
3. **Salvatore, R.N.** "Cesium Assisted Cyclization's" A Mild and Highly Efficient Internal S_N2 intramolecular ring-closure protocol for the direct preparation for structurally diverse medio- and macro-size heterocycles. (*Tetrahedron Letters,* submitted*)*
4. **Salvatore, R.N.** "Cesium Effect in Organic Synthesis" (*Chem. Rev., submitted)*
5. **Salvatore, R.N.** Tertiary Phosphine Induced Migratory Carbonyl Insertion in Cyclopentadienyl Complexes of Iron (*Tetrahedron Lett., In Press*)
6. **Salvatore, R.N.** "Cesium Effect: Mild and Efficient Construction of CarbonHeteroatom bonds" (*J.Org. Chem.* submitted)
7. **Salvatore, R.N.** Synthesis of Various Cyclopentadienyl Derivatives of Iron Pentacarbonyl (*Tetrahedron Lett., In Press*)
8. **Salvatore, R.N.** Perspectives on Quinoxaline Derivatives and Allied Compounds (*Tetrahedron, In Press*)
9. **Salvatore, R.N.**: A Rapid and Mild Reduction Protocol for Quinoxalines: An Efficient Synthesis of 1, 2, 3, 4-Tetrahydroquinoxalines. (*J.Org. Chem, In Press*)
10. Dueno, E. E.; Hunter, A. D.; Zeller, M.; Ray, T. A.; **Salvatore, R. N.;** Zambrano, C. H. Crystal Structure of 2,8, 14, 20-*tert*-Butylpyrogallol[4]arene. *Journal of Chemical Crystallography* (01/2008; 38(3):181-187. DOI: 10.1007/s10870-007-9285-7.
11. Hunter, A.D.; Zeller, M.; Zambrano, C. H.; Ray, T. A.; **Salvatore, R. N.;** Dueno, E. E, Crystal structure of 2, 8, 14, 20-*t*-Butylpyrogallol[4]arene. *Acta Crystallographica* Section E. 01/2008.
12. Zambrano, C.; Ray, T.E.; Zeller, M.; **Salvatore, R. N.;** Dueno, E. E. 2, 8, 14, 20*para*-Methoxytetraphenylpyrogallol[4]arene, *Acta Crystallographica* Section E Structure Reports Online 08/2007; 63(8).
13. Dueno, E, E.; Gibson. J.-P.;Gibson, R. J. P, G.; **Salvatore, R. N,** Pike, P.; Zambrano C. H. 2,2,3,3'-Tetrphenyl- 7, 7'-biquinoxaline. *Acta Chrysallogra* (2007; E63), ISSN: 1600-5364.
14. Pike, R. D.; Gibson, R.J. P. **Salvatore, R. N.;** Zambrano, C. H.; Dueno, E. E. 7,8-Dichloro-1, 2, 3, 4-Tetrahydrophenazine, *Acta Crystallographica*, *Section E*, RT2001.

15. **Salvatore, R, N.;** Dueno, E. E.; Zambrano, C.; Ray T. 2, 8, 14, 20-Tetrakis(4hydroxyphenyl)pyrogallol[4]arene dimethylformamide Hexasolvate, *Acta Crystallographica*, Section E, Volume 63, Part 8, o3533-o3534.
16. Honaker, M.; Hovland, J. M.; **Salvatore, R. N.** The Synthesis of Secondary and Tertiary Phosphines (invited review), *Current Organic Synthesis,* 2007, *4*, 31-45.
17. **Salvatore, R. N.;** Kass, J. P.; Gibson, R. J. P.; Zambrano, C.; Pike, R. D.; Dueno, E. E. 2,2',3, 3-Tetramethyl-6,6'-biquinoxaline, *Acta Cryst*. 2006, E62, 4547-0458.
18. Smith, R. A.; Nischwitz; A. K.; Cohen R. J.; Gavin, T. E.; **Salvatore, R. N.** A Mild and Highly Improved Chemoselective Alkylation of Thiols Using Cs_2CO_3-TBAI. *Tetrahedron Letters,* 2005, *46*, 8931.
19. Honaker, M. T.; **Salvatore, R. N.** A Mild and Efficient Synthesis of Disecondary Phosphines Using CsOH: Efforts toward Phosphine Macrocycles. *Letters in Organic Chemistry,* 2005, *2,* 54.
20. McKinney, A. M.; Jackson, K. R.; **Salvatore, R. N.;** Savrides, E. M.; Edattel, M. J.; Gavin, T. E. A Rapid and Efficient Method for the Reduction of Quinoxalines. *J. Heterocyclic Chem.,* 2005, *42*, 1031.
21. **Salvatore, R. N.** "CsOH in Organic Synthesis" In Chemetall Catalog (*http://specialmetals.chemetall.com/),* 2004, pp. 12-13.
22. **Salvatore, R. N.** Phosphono-Transfer Processes Leading to [P-C] Bond Formation. In *"Organophosphorus Reagents: A Practical Approach in Chemistry"* Edited by Patrick J. Murphy, Oxford University Press Inc., New York, **2004**, pp.188-212 (Book Chapter).
23. Cohen, R. J.; Fox, D. L.; **Salvatore, R. N.** A Novel and Highly Efficient Synthetic Route to Unsymmetrical Organoselenides Using Cesium Bases. *J. Org. Chem.* **2004,** *69*, 4265.
24. Fox, D. L.; Oliver, J. M.; Ruxer, J. T.; Alford, K. L.; **Salvatore, R. N.** Mild and Efficient Synthesis of Carbazates and Dithiocarbazates via a Three-Component Coupling Utilizing Cs_2CO_3 and TBAI. *Tetrahedron Lett.* 2004, *45*, 401.
25. Fox, D. L.; Robinson, A. A.; Frank, B.; **Salvatore, R. N.** CsOH-Promoted Epoxide Ring-Opening With Phosphines: Mild and Efficient Synthesis of Monohydroxyphosphines. *Tetrahedron Lett.* 2003, *44*, 7579.
26. Honaker, M. T.; **Salvatore, R. N.** A Mild and Highly Convenient Synthesis of Ditertiary Phosphines. *Phosphorus, Sulfur, Silicon Related Elem.*, 2004, 179 (2).
27. Honaker, M. T.; Sandefur, B.; Hargett, J. L.; **Salvatore, R. N.** CsOH-Promoted *P*Alkylation: Highly Efficient Synthesis of Tertiary Phosphines. *Tetrahedron Lett.* 2003, *44*, 8373.
28. Fox, D. L.; Whitely, N. R.; Cohen, R. J.; **Salvatore, R. N.** Dialkyldithiophosphonates: Efficient Three-Component Coupling of a Dialkylphosphites, CS_2, and an Alkyl Halide in the Presence of Cs_2CO_3 and TBAI. *Synlett.* 2003, *13*, 2037.
29. Cohen, R. J.; Fox, D. L.; Eubank, J. F.; **Salvatore, R. N.** Cs_2CO_3-Promoted Synthesis of Phosphonates. *Tetrahedron Lett.* 2003, *44*, 8617.
30. Nagle, A. S.; **Salvatore, R. N.;** Cross, R. M.; Kapxhiu, E. A.; Sahab, S.; Yoon, C. H.; Jung, K. W. Selective Mono-Protection of Diols, Diamines, and Amino-Alcohols Using Cesium Bases. *Tetrahedron Lett.* 2003, *44*, 5695.

31. **Salvatore, R. N.;** Chu, F.; Nagle, A. S. Kapxhiu, E. A.; Cross, R. M.; Jung, K. W. Efficient Cs_2CO_3-Promoted Solution and Solid Phase Synthesis of Carbonates and Carbamates in the Presence of TBAI. *Tetrahedron,* 2002, *58*, 33.
32. **Salvatore, R. N.;** Nagle, A. S.; Jung, K. W. Cesium Effect: High Chemoselectivity in the Direct *N*-Alkylation of Amines. *J. Org. Chem.* 2002, *67*, 674.
33. **Salvatore, R. N.;** Ledger, J. A.; Jung, K. W. An Efficient One-Pot Synthesis of *N*Alkyl Carbamates from Primary Amines Using Cs_2CO_3. *Tetrahedron Lett.* 2001, *42*, 6023.
34. **Salvatore, R. N.;** Yoon, C. H.; Jung, K. W. Synthesis of Secondary Amines. *Tetrahedron*, 2001, *57*, 7785.
35. **Salvatore, R. N.;** Shin, S. I.; Flanders, V. L.; Jung, K. W. Efficient and Selective *N*Alkylation of Carbamates in the Presence of Cs_2CO_3 and TBAI. *Tetrahedron Lett.* 2001, *42*, 1799.
36. **Salvatore, R. N.;** Sahab, S.; Jung, K. W. Mild and Efficient Synthesis of Thiocarbonates and Thiocarbamates via a Three Component Coupling Utilizing Cs_2CO_3 and TBAI. *Tetrahedron Lett.* 2001, *42*, 2055.
37. **Salvatore, R. N.;** Schmidt, S. E.; Shin, S. I.; Nagle, A. S.; Worrell, J. H.; Jung, K. W. CsOH-Promoted Chemoselective Mono-*N*-Alkylation of Diamines and Polyamines. *Tetrahedron Lett.* 2000, *41*, 9705.
38. **Salvatore, R. N.;** Shin, S. I.; Nagle, A. S.; Jung K. W. Efficient Carbamate Synthesis via a Three Component Coupling of an Amine, CO_2, and Alkyl Halides in the Presence of Cs_2CO_3 and TBAI. *J. Org. Chem.* 2001, *66*, 1035.
39. **Salvatore, R. N.;** Flanders, V. L.; Ha, D.; Jung, K. W. Cs_2CO_3-Promoted Efficient Carbonate and Carbamate Synthesis on Solid Phase. *Org. Lett.* 2000, *2*, 2797.
40. Parrish, J. P.; **Salvatore, R. N.;** Jung, K. W. Perspectives on Alkyl Carbonates in Organic Synthesis. *Tetrahedron* 2000, *42*, 8207.
41. Nagle, A. S.; **Salvatore, R. N.**; Chong, B.-D.; Jung, K. W. Efficient Synthesis of (ßAmino- Bromides. *Tetrahedron Lett.* 2000, *41*, 3011.
42. **Salvatore, R. N.;** Nagle, A. S.; Schmidt, S. E.; Jung, K. W. Cesium Hydroxide Promoted Chemoselective *N*-Alkylation for the Generally Efficient Synthesis of Secondary Amines. *Org. Lett.* 1999, *1*, 1893.
43. Schmidt, S. E.; **Salvatore, R. N.;** Jung, K. W.; Kwon, T. Efficient Syntheses of Cyclopropylacetylene: a Crucial Synthetic Intermediate for Efavirenz (DMP-266). *Syn Lett.* 1999, 1948.
44. Jones, C. J.; Kaselj, M.; **Salvatore, R. N.;** le Noble, W. J. Effects of Substituent Modification on Face Selection in Reduction. *J. Org. Chem.* 1998, *63*, 2758.

INVITED LECTURES, CONFERENCES & SEMINARS

1. *"Cesium Base-Promoted Alkylations: Mild & Efficient Formation of Carbon-Heteroatom Bonds and Synthetic Applications"* **Salvatore, R.N**. will be presented at Rensselaer Polytechnic Institute, Dept. of Chemistry, Troy, NY, November 2016.
2. ***"****Preparing for STEM and STEM Success: Evolving Relationships Between Two- and Four Year Colleges and Universities in STEM Education"* **Salvatore, R.N**. will be

presented at Rensselaer Polytechnic Institute, Dept. of Chemistry, Troy, NY, November 2016.

3. *"NANSLO: Putting Science Labs Online"* **Salvatore, R.N**. presented at Polk State College, Lakeland, FL, August, 2016.
4. *"Cesium Promoted Alkylations: Mild and Efficient Synthesis of Carbon-Heteroatom Bonds and Synthetic Applications"* **Salvatore, R.N**. will be presented at the International Conference of Organic Chemistry, Las Vegas, NV, August 2016.
5. *"Delivering Real Science Labs Online Using Web Remote Control Interfaces"* **Salvatore, R.N**. presented at Southeastern University, Lakeland, FL, August, 2016.
6. *"NANSLO Web-based Labs: Real Equipment, Real Data, Real People!"* **Salvatore, R.N**. presented at Everest University, Lakeland FL, August, 2016.
7. *"From Science Lab to Browser Tab: Laboratory Experiences for the Online Learner"* presented at Florida Polytechnic University, August, 2016.
8. *"You Can't Do That! Teaching Science Online with Real Laboratory Equipment"* presented at Florida Technical College, Lakeland FL, August, 2016.
9. *"Community Colleges Help Students Conduct Lab Science From Their Couches"* presented at Keiser University, Lakeland FL, August, 2016.
10. "*Remote Access Science Labs Remove Barriers to Learning*" **Salvatore, R.N**. presented at Florida Southern College, Lakeland FL, July, 2016.
11. *"From Science Lab to Browser Tab: Laboratory Experiences for the Online Learner"* presented at Florida Polytechnic University, July, 2016.
12. *"Cesium Promoted Alkylations: Mild and Efficient Synthesis of Carbon-Heteroatom Bonds and Synthetic Applications"* **Salvatore, R.N**. presented at SUNY Albany, Dept. of Chemistry, Albany, NY, June 2016.
13. *"Advancements to the Natural Science Curriculum within the Context of a Liberal Arts Setting"* **Salvatore, R.N**. presented at Excelsior College, Albany, NY, May 2016.
14. *"Effective Laboratory Experiences for Distance Learning Science Courses with Self-Contained Laboratory Kits"* **Salvatore, R.N**. presented at University of New England, Portland, Maine May 2016.
15. *"Creating an Effective Online Instructor Presence in Chemistry Courses"* **Salvatore, R.N**. presented at University of New England, Portland, Maine May 2016.
16. *"The Evolution of Distance Science Lab Options and Current Practices"* **Salvatore, R.N**. presented at College of St. Rose, Dept. of Chemistry, Albany, NY, May 2016.
17. *"The Role of Home Lab Kits in Online College Science Courses"* **Salvatore, R.N**. presented at Schenectady County Community College, Schenectady, NY May 2016.
18. *"Increasing the Online Experience: Making Online Education Something You Want to do While Engaging the Learner"* **Salvatore, R.N**. presented at Colorado Community College Online (CCC-Online), Denver, CO, May, 2016.
19. *"Implementation of a New Degree/Program to an Off Campus Education Site"* **Salvatore, R.N**. presented at Colorado State University-Pueblo, Pueblo, CO, May, 2016.
20. *"A New Approach to Teaching Biochemistry: Writing Reaction Mechanisms for Biochemical Reactions"* **Salvatore, R.N**. presented at Fairmount State University, Fairmont, WV, March 2016.

21. *"Writing Reaction Mechanisms in a Biochemistry Course"* **Salvatore, R.N**. presented at Rowan College, Sewell, NJ, January 2016.
22. *"Arrow Pushing in Inorganic Chemistry: A Logical Approach to the Chemistry of Main-Group Elements"* **Salvatore, R.N**. presented at University of Tampa, Tampa, FL, February 2016.
23. *"Reviewing for the MCAT: Chemical and Physical Foundations of Biological Systems"* **Salvatore, R.N**. presented at Regis University, Denver, CO, January 2016.
24. *"A.A. vs. A.S. vs. A.A.S. vs. A.G.S. What Associate Degree Should I Get?"* **Salvatore, R.N**. presented at Hillsborough Community College, Tampa, FL, December 2015.
25. *"Careers in Chemistry",* **Salvatore, R.N**. presented at University of South Florida, Tampa, FL, November 2015.
26. *"Photoelectric Effect: Elucidation of Particle-Wave Dual Nature of Light"* **Salvatore, R.N**. presented at Pikes Peak Community College, Centennial Campus, Colorado Springs, CO, August 2015.
27. *"How to Recruit Gen X Faculty Members"* presented at University of Massachusetts Boston, May, 2015.
28. *"Preparing Professional Chemists: Research in the Doctor of Chemistry (*DCHEM*) Program"* **Salvatore, R.N**. presented at University of South Florida, Tampa Campus, Tampa, FL, June 2015.
29. *An Overview of the Traditional Chemistry Ph.D. vs. the DCHEM degree"* **Salvatore, R.N**. will be presented at University of South Florida, Tampa Campus, Fort Tampa, FL, June 2015.
30. *The Doctor of Chemistry (*DCHEM*) Program: Preparing Problem Solvers for Industry"* will be presented at University of South Florida, St. Petersburg Campus, St. Petersburg, FL, June 2015.
31. *"Launching a World-Class & State-of-Art College of Pure & Applied Sciences"* **Salvatore, R.N**. presented at Floridian South Western State College, Thomas Edison (Lee) Campus, Fort Myers, FL, April 2015.
32. *"Pre-mordial Soup Chemistry: Conditions for the Emergence of Early Life on Primitive Earth"* **Salvatore, R.N**. presented at Florida Atlantic University, Boca Raton, FL, April 2015.
33. *"STEM to STE**A**M: How the Sciences and Arts Work Together to Enhance Creativity and Innovation"* **Salvatore, R.N**. presented at Palm Beach State College, Boca Raton, FL, April 2015.
34. *Colorado STEM Education Roadmap and Action Plan: Closing the Opportunity Gap through Equity and Excellence in STEM Education*. **Salvatore, R.N**. presented at Colorado College, CO, April 2015.
35. *"Robust STEM Initiatives at PCC: Educate to Innovate"* **Salvatore, R.N**. presented at Colorado Community College System, CO, April 2015.
36. *"Evolution of STEM in the Unites States"* Presented at 2014 STEMtech conference, **Salvatore, R.N**. November 2015.
37. *"Creating an Educational Pipeline in STEM for Women, Minorities, and Veterans"* presented at Colorado State University Pueblo, CO, April 2015. **Salvatore, R.N**. presented at St. Petersburg College, Clearwater Campus, FL, April 2015.

38. *"The Role of Chair in Positive Departmental Change",* **Salvatore, R.N**. presented at St. Petersburg College, Clearwater Campus, FL, April 2015.
39. *"Robust STEM Initiatives in the Community College Setting"* **Salvatore, R.N**. presented at Hillsborough Community College, Tampa, FL, April 2015.
40. *"High Quality Instruction & Robust Scholarly Activities in the Pure and Applied Sciences"* **Salvatore, R.N**. presented at Floridian South Western State College, Thomas Edison (Lee) Campus, Fort Myers, FL, April 2015.
41. *"**V**alence **S**hell **E**lectron **P**air **R**epulsion (VSEPR) **T**heory & Molecular Geometry"* by **Salvatore, R.N**. presented at Georgia Perimeter College, Clarkston, GA, March 2015.
42. *"Stoichiometry: Limiting & Excess Reagents in Chemical Reactions"* by **Salvatore, R.N**. presented at Georgia Gwinnett College, Lawrenceville, GA, February 2015.
43. *"Mild and Efficient Synthesis for Structurally Diverse Carbon-Heteroatom and CarbonCarbon Bonds"* by **Salvatore, R.N**. presented at Georgia Gwinnett College, Lawrenceville, GA, February 2015.
44. *"Cesium Assisted Cyclizations: A Mild and Highly Efficient Internal S_N2 intramolecular ring-closure protocol for the direct preparation for structurally diverse medio- and macro-size heterocycles"*, **Salvatore, R.N**. will be presented at the 249th American Chemical Society Meeting, March 2015, Organic Division, Denver, Colorado.
45. "Cesium Effect: Mild and Efficient Construction of Carbon-Heteroatom bonds" **Salvatore, R.N.** will be presented at the 249th American Chemical Society Meeting, March 2015, Organic Chemistry Division, Denver Colorado.
46. "*Engaging Undergraduates in Chemical Research at a Community College*", **Salvatore, R.N.** will be presented at 249th American Chemical Society Meeting, Chemical Education Division, March 2015, Denver, Colorado.
47. *"Combining the Offices of the Dean of Academic Affairs + Dean of Student Services = Student Success!"* **Salvatore, R.N.** November, 2014, Miami Dade College, Homestead, FL.
48. *Building the Future: Status of Strategic Planning (Destination 2015)"* **Salvatore, R.N.** October, 2014, Broward College, Fort Lauderdale, FL.
49. *Cesium Effect:* Mild *and Efficient Synthesis of Macrocycles, Macrolides and Heterocycles*" University of Colorado, Colorado Springs, Colorado Springs, CO. **Salvatore R.N.** September 2014.
50. Attended the Community College Undergraduate Research Initiative (CCURI) in Scottsdale Arizona, October, 2014
51. ***"****The Role of Dean in Leadership and Innovation for the Future of the Community College: Transforming Opportunities into Reality****"*, **Salvatore, R.N.** June, 2013, Nassau Community College (NCC), Garden City, Long Island, NY.
52. *"Perspectives on Heterocycles in Drug Discovery"*, **Salvatore, R.N.** May, 2013, SUNY Purchase College, Purchase, NY.
53. ***"****The Role of Dean in Leadership and Innovation for the Future of the Community College: Transforming Opportunities into Reality****"*, **Salvatore, R.N.** May, 2013, Pueblo Community College (PCC), Pueblo, CO.
54. *"Cesium Effect: Novel Mechanistic Concepts and Synthetic Applications"* **Salvatore, R. N.** May 2013, Department of Chemistry, Colorado State University (CSU), Fort Collins, CO.

45. *"Novel Artificial Bio-molecules and Heterocycle Synthesis: Reactions and Medicinal Applications",* **Salvatore, R. N.** May, 2013, Department of Biology and Chemistry, Morehead State University, Morehead, KY.

46**.** ***"****The Role of Chair in Positive Departmental Change",* **Salvatore, R.N.** May, 2013, Morehead State University, Morehead, KY.

47. ***"****The Path Forward: The Future of Graduate Education and Research****",*** **Salvatore, R.N.** April, 2013, Northeastern Illinois University (NEIU), Chicago, IL.

30. ***"****The Role of Dean in Leadership and Innovation for the Future: Transforming Opportunities into Reality****",*** **Salvatore, R.N.,** April, 2013, LaGuardia Community College, City University of New York (CUNY), Long Island City, NY.

31. ***"****The Role of Dean in Leadership and Innovation for the Future: Transforming Opportunities into Reality****",",*** **Salvatore, R.N.** April, 2013, Oakland Community College, Bloomfield Hills, MI.

32. ***"****The Role of Dean in the 'New' College of Science and Technology (CST)",* **Salvatore, R.N.** February, 2013, Florida Atlantic and Mechanical University (FAMU), Tallahassee, FL.

33. ***"****The Role of Chair in Positive Departmental Change",* **Salvatore, R.N.** November, 2012, The University of New Mexico, Albuquerque and Gallup Campuses, NM.

34. ***"****The Role of Chair in Positive Departmental Change",* **Salvatore, R.N.** April, 2012, University of Maryland Eastern Shore, Princess Anne, MD.

35. ***"****The Role of Chair in Positive Departmental Change",* **Salvatore, R.N.** March, 2012, Miami-Dade College, Homestead, FL.

36. ***"****The Role of Chair in Positive Departmental Change",* **Salvatore, R.N.** March, 2012, Georgia Perimeter College, Dunwoody, GA.

37. *"General Aspects on Nucleophilic Substitution Reactions in Organic Chemistry",* **Salvatore, R.N.** March, 2012, Georgia Perimeter College, Dunwoody, GA.

38. *"Highly Efficient Carbon-Carbon and Carbon-Heteroatom Bond Formation: Novel Concepts, Reactions, and Syntheses"* **Salvatore, R.N.** Indiana University-Purdue University Fort Wayne, March, 2012, Fort Wayne, IN.

39. *"Novel Artificial Biomolecules and Heterocycle Synthesis: Reactions and Medicinal Applications",* **Salvatore, R.N.** Lehman College-CUNY Biological Sciences Seminar Series, May 2008.

40. *"Selective N-Alkylation of Aromatic Amines",* **Salvatore, R. N.**; Hovland. J. 234th National Meeting in Boston, MA, Medicinal Chemistry Division, August, 2007.

41. *"Synthesis of 3-H-1-Benzodiazopines"* 55th New York American Chemical Society Undergraduate Research Symposium (NY-ACS-URS), Organic Division, Oral Presentation, Manhattan College, May 2007.

42. *"A Convenient Synthesis of 1,2,3,4- Tetrahydroquinoxalines*, Hovland, J. M*;* **Salvatore, R. N.** 55th New York American Chemican Society Undergraduate Research Symposium (NY ACS URS), Organic Division, Oral Presentaion, Manhattan College, May, 2007.

43. *"An Efficient and Operationally Convenient General Synthesis of Tertiary Amines by Direct N-Alkylation of Secondary Amines and Heterocycles with Alkyl Halides in the Presence of CsOH",* **Salvatore, R. N.;** Hovland. J. 234th National Meeting in Boston,

MA, Medicinal Chemistry Division, August, 2007.

46. *"The Cesium Effect in Organic Synthesis",* **Salvatore, R. N.** 234th National Meeting in Boston, MA, Organic Division, August, 2007.
47. *Preliminary Investigations on Organobarium Chemistry: Novel Mechanistic Concepts and Synthetic Applications.* **Salvatore, R. N.** 234th National Meeting in Boston, MA August, 2007.
48. *"Quinoxaline and Allied Compounds" Synthetic Perspectives and Novel Reactions*. Hovland J.; **Salvatore, R. N.** 234th National Meeting in Boston, MA, August, 2007.
49. *An Environmentally Benign Effort toward Phosphorus-Carbon Heterocycles.* **Salvatore, R. N.** Hovland. J. 234th National Meeting in Boston, MA, August, 2007. 234th National Meeting in Boston, MA, April, 2007.
50. Hovland J. M.; Kaplan, H.; **Salvatore, R. N.** *CsOH-Promoted Aldol Condensation: A Mild and Efficient Synthesis of Chalcones.* American Chemical Society, New York Section, Manhattan College, May 2007.
51. Hovland, J. M.; **Salvatore, R. N.** *Organometallic Chemistry: Separation and NMR Characterization of cis- and trans-Bis(cyclopentadienyldicarbonyliron) and Bis(cyclopentadienyldicarbonyltungsten) Isomers*. American Chemical Society, New York Section, Manhattan College, May 2007
52. *"Highly Efficient Carbon-Carbon and Carbon-Heteroatom Bond Formation: Novel Concepts, Reactions, and Syntheses"* **Salvatore, R.N.**, Department of Chemistry, Lehman College, City University of New York. Davis 108, USF-St. Petersburg (Tampa Bay American Chemical Society Meeting, Wednesday, April 4, 2007)
53. *"An Introduction to Green Chemistry: 'Environmentally Benign by Style' for Sustaining the Earth and Preventing Pollution"* **Salvatore, R.N.,** Department of Chemistry, Lehman College, City University of New York. Chase Auditorium, New College of Florida (Tampa Bay American Chemical Society Meeting, Thursday, April 5, 2007).
54. *The Rationale Design, Chemical Synthesis and the Inherent Applications of Biomimetic Materials and the Synthesis of Artificial Bio-molecules and Artificial Skins.* **Salvatore, R. N.** University of Boston Dartmouth, University of Textiles Sciences, North Dartmouth, 285 Old Westport Road, North Dartmouth, MA, May 4th, 2006
55. *CsOH-Promoted Ring Closure for the Generally and Efficient Synthesis of Structurally Diverse Heterocycles*. **Salvatore, R. N.;** Steinberg, J. A. Presented at the 231st ACS Meeting in Atlanta GA, March 2006 (ORGN 85)
56. *Novel Applications of the 'Cesium Effect' in Organic Synthesis: Regioselective RingOpening of Epoxides with Phenylselenol for the Preparation of Hydroxy-Selenides and a Mild and Highly Efficient Synthesis of Organosilanes Using CsOH*. Nischwitz, A. K.; Frey, J.; Pendelton, J. J. C.; Smith, R. A.; **Salvatore, R. N.** Presented at the 230th ACS National Meeting, Washington, DC, August 2005 (ORGN 148)
57. *A Rapid and Efficient Method for the Reduction of Nitrogen Heterocycles.* Poppy, D. C.; McKinney, A. M. Jackson, K. R.; Smith, A. R.; **Salvatore, R. N.**; Savarides, E.-M.; Eddattel, M. J.; Gavin, T. E. Presented at the 230th ACS National Meeting, Washington, DC, August 2005 (ORGN 147)

58. *CsOH-Promoted Direct Mono-P-Alkylation of Primary Phosphines: A Mild and Highly Chemoselective Synthetic Route toward Secondary and Disecondary Phosphines*. Honaker, M. T. Sandefur, B. J.; Hargett, B. and **Salvatore, R. N.** Presented at the 230th ACS National Meeting, Washington, DC, August 2005 (ORGN 149)
59. *Synthesis and Characterization of Bis-Diphosphine Complexes with Transition Metals*. McDaniel, A. L.; Honaker, M. T.;Davidson, K.; Pesterfield, L. L. and **Salvatore, R. N.** Presented at the 229th ACS National Meeting, San Diego, CA, March 2005 (INORG 319)
60. *A Convenient and Highly Efficient of the Alkylation of Thiols Using Cs_2CO_3-TBAI*. Smith, R.A. Nischwicz A. K.; **Salvatore, R. N.** Presented at the 228th ACS National Meeting, Philadelphia, PA, August 2004 (ORGN 617)
61. *An Undergraduate Organic Chemistry Laboratory Experiment in Chirality: Isolation and Analysis of d-Limonene from a Variety of Citrus Fruits*. McKinney, A.; Ruxer, J. T.; Smith, R. A.; **Salvatore, R. N.** Presented at the 228th ACS National Meeting, Philadelphia, PA, August 2004 (CHED 51)
62. *A Novel and Highly Efficient Synthetic Route to Unsymmetrical Organoselenides*. *Cohen, R.; Fox, D.;* ***Salvatore, R. N.*** Presented at the 226th ACS National Meeting, August 2004 (ORGN 618)
63. *A Mild, Efficient and Direct Synthesis of Phosphines, Phosphonates, and Their Derivatives via the 'Cesium Effect': Novel Synthetic Methodologies and Applications Toward Total Synthesis*. **Salvatore, R. N.** Presented at the 16th International Conference on Phosphorus Chemistry (ICPC 2004), Birmingham, UK, July 2004
64. *A Mild and Highly Convenient Chemoselective Alkylation of Thiols Using Cs_2CO_3TBAI*. Smith, R. A.; Kolb, K.; McDaniel, A. L.; **Salvatore, R. N.** Presented at the 2004 *Sigma Xi* Research Conference, April 2004
65. *Mild and Efficient Synthesis of Carbazates and Dithiocarbazates via a ThreeComponent Coupling Using Cs_2CO_3-TBAI*. Fox, D. L.; Ruxer, J. T.; Oliver, J. M.; Alford, K. L.; **Salvatore, R. N.** Presented at the 2004 *Sigma Xi* Research Conference, April 2004
66. *A Novel and Highly Efficient Synthetic Route to Unsymmetrical Organoselenides Using Cesium Bases*. Cohen, R. J.; Fox, D. L.; **Salvatore, R. N.** Presented at the 2004 *Sigma Xi* Research Conference, April 2004
67. *Preliminary Investigations on Organobarium Chemistry: Novel Mechanistic Concepts and Synthetic Applications*. Ruxer, J. T.; Carter, J.; Simpson, J.; Fisher, D.; Jackson, K.; Larkin, S.; Holman, R. W.; **Salvatore, R. N.** Presented at the 2004 *Sigma Xi* Research Conference, April 2004
68. *Chirality: Isolation and Analysis of d-Limonene from a Variety of Citrus Fruits*. McKinney, A.; Ruxer, J. T.; Smith, R. A.; **Salvatore, R. N.** Presented at the 2004 *Sigma Xi* Research Conference, April 2004
69. *Cs_2CO_3-Promoted Synthesis of Phosphonates and Phosphonodithioformates*. Cohen, R. J.; Fox, D. L.; Eubank, J. F.; Whitely, N. R.; **Salvatore, R. N.** Presented at the 89th Annual Kentucky Academy of Science Meeting, Bowling Green, KY, November 2003 (Poster # 52)
70. *CsOH-Promoted Epoxide Ring-Opening with Phosphines: Mild and Efficient Synthesis of Monohydroxyphosphines*. Fox, D. L.; Robinson, A. A.; Frank, B.; **Salvatore, R. N.** Presented at the 89th Annual Kentucky Academy of Science Meeting,

Bowling Green, KY, November 2003 (Poster # 46)

71. *Mild and Efficient Synthesis of Carbazates and Dithiocarbazates via a Three-Component Coupling*. Ruxer, J. T.; Fox, D. L.; Oliver, J. M.; Alford, K. L.; **Salvatore, R.N.** Presented at the 89th Annual Kentucky Academy of Science Meeting, Bowling Green, KY, November 2003 (Poster # 48)
72. *CsOH-Promoted P-Alkylation: A Convenient and Highly Efficient Synthesis of Substituted Phosphines*. Sandefur, B. J.; Honaker, M. T.; Hargett, J. L.; McDaniel, A. L.; Garabato, B. D.; **Salvatore, R. N.** Presented at the 89th Annual Kentucky Academy of Science Meeting, Bowling Green, KY, November 2003 (Poster # 43)
73. *Mild and Efficient Synthesis of Carbazates and Dithiocarbazates via a Three-Component Coupling Using Cs_2CO_3-TBAI*. Fox, D. L.; Ruxer, J. T.; Oliver, J. M.; Alford, K. L.; **Salvatore, R. N.** Presented at the 55th Annual Southeast Regional Meeting of The American Chemical Society Meeting (SERMACS), Organic Division, Atlanta, GA, November 2003 (ORGN # 679)
74. *CsOH-Promoted P-Alkylation: A Convenient and Highly Efficient Synthesis of Tertiary Phosphines*. Honaker, M. T.; Sandefur, B. J.; Hargett, J. L.; McDaniel, A. L.; **Salvatore, R. N.** Presented at the 55th Annual Southeast Regional Meeting of The American Chemical Society Meeting (SERMACS), Organic Division, Atlanta, GA, November 2003 (ORGN # 658)
75. *Synthesis and Characterization of Bis-Diphosphine Complexes with Transition Metals*. McDaniel, A. L.; Honaker, M. T.; **Salvatore, R. N.**; Pesterfield, L. L. Presented at the 55th Annual Southeast Regional Meeting of The American Chemical Society Meeting (SERMACS), Inorganic Division, Atlanta, GA, November 2003 (INOR # 412)
76. *CsOH-Promoted Epoxide Ring-Opening with Phosphines: Mild and Efficient Synthesis of Monohydroxyphosphines*. Robinson, A. A.; Frank, B.; Fox, D. L. **Salvatore, R. N.** Presented at the 225th ACS Meeting at New York, NY, September 2003 (ORGN 120)
77. *Highly Efficient Construction of the Carbon-Phosphorus Bond: A Novel Approach for the Synthesis of Structurally Diverse Organophosphorus Compounds Using Cesium Bases*. **Salvatore, R. N.** Presented at the 226th ACS Meeting at New York, NY, September 2003. (ORGN 491)
78. *Mild and Efficient Synthesis of Phosphonates and Phosphonodithioformates Using Cs_2CO_3-TBAI: Applications toward the Synthesis of Phosphonopeptides*. Fox, D. L.; Cohen, R. J.; **Salvatore, R. N.** Presented at the 2003 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2003
79. *Cs_2CO_3-Promoted Chemoselective N-Alkylation of Hydrazines*: Efficient Synthesis of Carbazates via a Three-Component Coupling and Efforts toward Azadepsipeptide Synthesis. Oliver, J.; Bradley, S.; Ruxer, J. T.; Joshi, V.; Alford, K.; **Salvatore, R. N.** Presented at the 2003 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2003
80. *CsOH-Promoted P-Alkylation: Highly Efficient Synthesis of Tertiary Phosphines and Their Metal Complexes*. Sandefur, B.; Honaker, M. T.; Hargett, J.; McDaniel, A. L.; Pesterfield, L. L.; **Salvatore, R. N.** Presented at the 2003 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2003
81. *CsOH-Promoted Epoxide Ring-Opening: Efficient Synthesis of*

Monohydroxyphosphines. Robinson, A.; Frank, B.; Fox, D. L.; **Salvatore, R. N.** Presented at the 2003 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2003.

82. *Amazing Polymers'*. Hobbs, A.; Honaker, M.; McCombs, M.; McDaniel, A.; **Salvatore, R.**; Pesterfield, L. Presented at the 225th ACS Meeting at New Orleans, LA, March 2003, (Division of Chemical Education)
83. *CsOH-Promoted P-Alkylation: Highly Efficient Synthesis of Tertiary Phosphines and Their Metal Complexes*. Honaker, M. T.; Sandefur, B.; McDaniel, A. L.; Pesterfield, L. L.; **Salvatore, R. N.** Presented at the 225th ACS Meeting at New Orleans, LA, March 2003, (poster # ORGN 373)
84. *Efficient Synthesis of Dialkyldithiophosphonates via a Three-Component Coupling of a Dialkylphosphite, CS_2, and an Alkyl Halide in the Presence of Cs_2CO_3-TBAI*. Fox, D. L.; Cohen, R. J.; Whitely, N. R.; **Salvatore, R. N.** Presented at the 224th ACS Meeting at Boston, MA, August 2002, (poster # ORGN 709)
85. *An Improved Michaelis-Becker Reaction: Efficient Cs_2CO_3-Promoted Synthesis of Phosphonates and Derivatives*. Cohen, R. J.; Curtis, S. M.; Bennis, B. E.; **Salvatore, R.N.** Presented at the 224th ACS Meeting at Boston, MA, August 2002, (poster # ORGN 710)
86. *Efficient Synthesis of Dialkyldithiophosphonates via a Three-Component Coupling Using a Dialkylphosphite, CS_2, and an Alkyl Halide in the Presence of Cs_2CO_3-TBAI*. Fox, D. L.; Cohen, R. J.; Whitely, N. R.; **Salvatore, R. N.** Presented at the 2002 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2002
87. *An Improved Michaelis-Becker Reaction: Efficient Cs_2CO_3-Promoted Synthesis of Phosphonates and Derivatives*. Bennis, B. E.; Curtis, S. M.; Eubank, J. F.; **Salvatore, R. N.** Presented at the 2002 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2002
88. *Cs_2CO_3-Promoted Mono-Thiocarbonylation of Diols, Chemoselective Thiocarbamations of Diamines, and Efficient One-Pot Synthesis of N-Alkyl Carbamates*. **Salvatore, R. N.**; Sahab, S.; Ledger, J.; Jung, K. W. Presented at ACS's 37th National Organic Symposium in Montana, June 2001 (Poster # 185)
89. *Mild and Efficient Synthesis of Thiocarbonates and Thiocarbamates Utilizing Cs_2CO_3 and TBAI*. Sahab, S.; **Salvatore, R. N.**; Jung, K. W. Presented at The Raymond Castle Research Conference, University of South Florida, Tampa, FL, April 28, 2001 (Poster # 31)
90. *Application of ß-Aminobromides towards Peptidomimetic Synthesis*. Nagle, A. S.; **Salvatore, R. N.**; Jung, K. W. Presented at The Raymond Castle Research Conference, University of South Florida, Tampa, FL, April 28, 2001 (Poster # 30)
91. *Efficient Carbamate Synthesis via a Three-Component Coupling*. Kim, S.-I.; **Salvatore, R. N.**; Flanders, V. L.; Jung, K. W. Presented at ACS's 218th National meeting in New Orleans, LA, August 1999, (Poster # ORGN 0348)
92. *Selective N-Alkylation for Efficient Synthesis of Secondary Amines*. **Salvatore, R. N.**; Nagle, A. S.; Schmidt, S. E.; Jung, K. W. Presented at ACS's 36th National Organic Symposium in Madison, WI, June 1999, (Poster # 234)
93. *Facile Method for the Preparation of Amino Bromides: A Key Intermediate for Coupling in Peptidomimetic Synthesis*. Nagle, A. S.; **Salvatore, R. N.**; Kim, S.-I.; Jung,

K. W. Presented at the ACS's 36th National Organic Symposium in Madison, WI, June 1999, (Poster # 188)

94. *Efficient Carbonate and Carbamate Synthesis via Three-Component Coupling on Solid Supports*. Kim, S.-I.; Flanders, V. L.; Ha, D.; **Salvatore, R. N.**; Jung, K. W. Presented at the ACS's 36th National Organic Symposium in Madison, WI, June 1999, (Poster # 134)
95. *Selective N-Alkylation for Efficient Synthesis of Secondary Amines*. **Salvatore, R. N.**; Schmidt, S. E.; Jung, K. W. Presented at ACS's 217th National meeting in Anaheim, CA, March 1999, (Poster # ORGN 0239)
96. *Synthesis and Characterization of a Tetradentate Ligand with the Donor Sequence NNSN for Complexation with Cobalt (III)*. Schmidt, S. E.; **Salvatore, R. N.**; Worrell, J. H.; Jung, K. W Presented at ACS's 217th National Meeting in Anaheim, CA, March 1999, (Poster # INORG 0276)
97. *Selective N-Alkylation for the Efficient Synthesis of Secondary Amines*. **Salvatore, R. N.**; Schmidt, S. E.; Jung, K. W. Presented at the Sixteenth Annual Florida Organic Faculty Conference, Tampa, FL, February 27, 1999
98. *Synthesis and Characterization of a Tetradentate Ligand with the Donor Sequence NNSN for Complexation with Cobalt (III)*. Schmidt, S. E.; **Salvatore, R. N.**; Worrell, J. H.; Jung, K. W. Presented at the 16th Annual Florida Organic Faculty Conference, Tampa, FL, February 27, 1999
99. *Organic Reactions in H2O: A Critical Review:* **Salvatore, R. N.***; 16th Annual Florida* Organic Faculty Meeting, University of South Florida, Tampa, FL 1999

TEXTBOOK PUBLICATIONS, RESEARCH TEXTS AND BOOK CHAPTERS (in print or in preparation)

1. **Salvatore, R .N**.: "Perspectives on Cesium Salts in Organic Synthesis", release date TBA: CRC Press Publishing.
2. **Salvatore, R .N**.: "Cesium Effect in Organic Synthesis", release date TBA: CRC Press Publishing.
3. **Salvatore, R .N**.: Organic Chemistry: Structure, Mechanisms, Methods, Reactions and Synthesis" (1st edition), release date TBA: Houghton Mifflin Publishing.
4. **Salvatore, R. N.** "Cesium Effect: Novel Mechanistic Concepts & Synthetic Applications" *Invited Review for Chem. Rev. (*manuscript in preparation*)*
5. **Salvatore, R. N.** "Arylphosphonium Salts [$ArPR_3^+$] and Derivatives (31.43)". In the *Science of Synthesis* –Volume 31b, Thieme Publishers. *Invited Review.(*manuscript in preparation*)*
6. **Salvatore, R.N.** "Macro- and, Micro-scale, Experimental Heterocyclic Chemistry"; Houghton Mifflin Publishing Co., Boston, MA, (manuscript in preparation)
7. **Salvatore, R. N.** "Modern Green Organic Chemistry Experiments" Houghton Mifflin Publishing Co., Boston, MA (manuscript in preparation)
8. **Salvatore, R. N. "**CHM 125 Criminalistics Laboratory" (manuscript in preparation)
9. **Salvatore, R. N. "** Micro- and Macro-scale General Chemistry Laboratory

Experiments" Houghton Mifflin Publishing Co., Boston, MA (manuscript in preparation)

10. Dueno, E. E.; **Salvatore, R. N**.; Bautista, D. *Modern Organic Chemistry Experiments CHE 366/367*-Wiley & Sons Publishing Co., NJ, 2006 (ISBN: 0470-09538-5)
11. **Salvatore, R. N**. In Recent Research Developments in Organic Chemistry. *"The Cesium Effect in Organic Synthesis"* Published by Trans-World Research Network, (*manuscript in preparation)*
12. **Salvatore, R. N**.; Jung, K. W. *Experimental Organic Chemistry: A Synthetic and Mechanistic Perspective;* Wiley & Sons Publishing Co., NJ, 2006 (ISBN: 13-0978-47177841)
13. Dueno, E.; **Salvatore, R. N.;** Bautista, D. *Modern Experimental Organic Chemistry CHE 366/367-Organic Chemistry Lab Manual*, Eastern Kentucky University, Richmond, KY, 40475
14. **Salvatore, R. N.;** Jung, K. W. *Experimental Organic Chemistry: A Synthetic and Mechanistic Perspective;* Houghton Mifflin Publishing Co., Boston, MA, 2001 (ISBN: 0-61819-885-7).
15. **Salvatore, R. N**.; Jung, K. W. *Organic Chemistry Laboratory Manual, 2nd ed.*; Alliance Press Publishing Co.: Carrollton, TX, 2000 (ISBN: 1-58316-103-1).
16. **Salvatore, R. N.;** Jung, K. W. *Organic Chemistry Laboratory Manual*; Alliance Press Publishing Co.: Carrollton, TX, 1999 (ISBN: 1-518316-041-8).
17. Dueno, E.E.; **Salvatore, R.N.;** Bautista, D. L. *T. W. G. Solomons /Organic Chemistry 8e w/ Organic Chemistry Lab Manual SET* entitled "*Modern Organic Experiments",* 2006, (ISBN: 0-470-09538-5)

WEBSITES (URL):

1. http://www.lcmeridian.com/2.15266/new-chemistry-chair-looks-forward-tochange-1.1990628
2. http://media.www.lcmeridian.com/media/storage/paper806/news/2007/01/01/PeopleFromLehman/New-Face-2599354.shtml
3. http://www.lcmeridian.com/home/index.cfm?event=displayArticle&ustory_id=739ed2e5-d17c-426b-8753-4613aeea77ff&page=1
4. http://www.lcmeridian.com/home/index.cfm?event=displayArticle&ustory_id=739ed2e5-d17c-426b-8753-4613aeea77ff&page=2
5. http://www.lehman.edu/lehman/enews/2006_09_18/feat_newhires.html
6. http://www.lehman.edu/academics/chemistry/prof.salvatore.php
7. http://www.lehman.edu/lehmantoday/newsroom.html#salvatore
8. http://www.lehman.edu/lehman/president/PresidentsLetterFall2008.pdf
9. http://www.lehman.edu/lehman/programs/GraduateBookPDF.pdf (*See: Page 51-Chemistry-Graduate Program: Ph.D.)*
10. http://www.lehman.edu/lehman/programs/UndergraduateBulletinBACKUP_PDF2.pdf *(See: Page 88-Chemistry-Undergraduate Program: B.A.; B.S.)*
11. http://lcmeridian.com/2007/01/01/new-face/

CHEMICAL SCIENCE CONFERENCES ATTENDED

1. Attended the Spring American Chemical Society National Meeting, Boston, MA, August 2015.
2. Attend International Summer School in Organic Synthesis, University of Milan, Italy, June 14-18 2015.
3. Attended 2014 STEMtech Conference, Denver, CO, November 2014.
4. Attended the Community College Undergraduate Research Initiative (CCURI) Conference, October 2014, Scottsdale, Arizona
5. Hovland, J. M*;* **Salvatore, R. N.** "A Convenient Synthesis of 1, 2, 3, 4-Tetrahydroquinoxalines, 55th New York American Chemical Society Undergraduate Research Symposium (NY ACS URS), Organic Division, Oral Presentation, Manhattan College, May, 2007
6. **Salvatore, R. N.;** Hovland. J. "Selective *N*-Alkylation's of Aromatic Amines", 234th National Meeting in Boston, MA, Medicinal Chemistry Division, August, 2007
7. **Salvatore, R. N.;** Hovland. J. "An Efficient and Operationally Convenient General Synthesis of Tertiary Amines By Direct N-Alkylation's of Secondary Amines and Heterocycles With Alkyl Halides in the Presence of CsOH", 234th National Meeting in Boston, MA, Medicinal Chemistry Division, August, 2007
8. **Salvatore, R. N.** "The Cesium Effect in Organic Synthesis" 234th National Meeting in Boston, MA, Organic Division, August, 2007
9. **Salvatore, R. N.** Preliminary Investigations on Organobarium Chemistry: Novel Mechanistic Concepts and Synthetic Applications. 234th National Meeting in Boston, MA, August, 2007
10. **Salvatore, R. N**.; Hovland, J. "Quinoxaline and Allied Compounds" Synthetic Perspectives and Novel Reactions. Hovland J. 234th National Meeting in Boston, MA August, 2007.
11. **Salvatore, R. N.;** Hovland, J. "An Environmentally Benign Effort toward PhosphorusCarbon Heterocyles", 234th National Meeting in Boston, MA, August, 2007. 234th National Meeting in Boston, MA, April, 2007
12. Hovland, J. M.; Kaplan, H.; **Salvatore, R. N.** CsOH-Promoted Aldol Condensation: A Mild and Efficient Synthesis of Chalcones. American Chemical Society, New York Section, Manhattan College, May 2007
13. Hovland, J. M*;* **Salvatore, R. N**. "A Convenient Synthesis of 1, 2, 3, 4-Tetrahydroquinoxalines, 55th New York American Chemical Society Undergraduate Research Symposium (NY ACS URS), Organic Division, Oral Presentation, Manhattan College, May, 2007
14. **Salvatore, R. N**.; Hovland. J. "Selective *N*-Alkylation's of Aromatic Amines", 234th National Meeting in Boston, MA, Medicinal Chemistry Division, August, 2007.
15. **Salvatore, R. N**.; Holland. J. "An Efficient and Operationally Convenient General Synthesis of Tertiary Amines By Direct N-Alkylation's of Secondary Amines and Heterocycles With Alkyl Halides in the Presence of CsOH", 234th National Meeting in Boston, MA, Medicinal Chemistry Division, August, 2007.

16. **Salvatore, R. N.** "The Cesium Effect in Organic Synthesis" 234th National Meeting in Boston, MA, Organic Division, August, 2007
17. **Salvatore, R. N.** Preliminary Investigations on Organobarium Chemistry: Novel Mechanistic Concepts and Synthetic Applications. 234th National Meeting in Boston, MA, August, 2007
18. **Salvatore, R. N.**; Hovland, J. "Quinoxaline and Allied Compounds" Synthetic Perspectives and Novel Reactions, 234th National Meeting in Boston, MA, August, 2007
19. **Salvatore, R. N.** Hovland, J. An Environmentally Benign Effort toward PhosphorusCarbon Heterocyles. 234th National Meeting in Boston, MA, August, 2007. 234th National Meeting in Boston, MA, April, 2007
20. Hovland, J. M.; **Salvatore, R. N.** In Organometallic Chemistry: Separation and Character-ization of *cis*- and *trans*-Bis(cyclopentadienyldicarbonyliron) and Bis(cyclopentadienyldicarbonyltungsten) Isomers. American Chemical Society, New York Section, Lehman College, May 2007
21. Tampa Bay American Chemical Society Meeting, Wednesday, April 4, 2007. "Highly Efficient Carbon-Carbon and Carbon-Heteroatom Bond Formation: Novel Concepts, Reactions, and Syntheses", **Salvatore, R. N.**, Department of Chemistry, Lehman College, City University of New York. Davis 108, USF-St. Petersburg
22. Tampa Bay American Chemical Society Meeting, Thursday, April 5, 2007. "An Introduction to Green Chemistry: 'Environmentally Benign by Style' for Sustaining the Earth and Preventing Pollution" **Salvatore, R. N.**, Department of Chemistry, Lehman College, City University of New York. Chase Auditorium, New College of Florida
23. The Rationale Design, Chemical Synthesis and the Inherent Applications of Biomimetic Materials and the Synthesis of Artificial Bio-molecules: **Salvatore, R. N.**, University of Massachusetts Dartmouth, University of Textiles Sciences, North Dartmouth, 285 Old Westport Road, North Dartmouth, MA 02747-2300., May 4th, 2006
24. CsOH-Promoted Ring Closure for the Generally and Efficient Synthesis of Structurally Diverse Heterocycles. **Salvatore, R. N.;** Steinberg, J. A. Presented at the 231st ACS Meeting in Atlanta GA, March 2006 (ORGN 85)
25. Novel Applications of the 'Cesium Effect' in Organic Synthesis: Regioselective Ring-Opening of Epoxides with Phenylselenol for the Preparation of Hydroxy-Selenides and a Mild and Highly Efficient Synthesis of Organosilanes Using CsOH. Nischwitz, A. K.; Frey, J.; Pendelton, J. J. C.; Smith, R. A.; **Salvatore, R. N.** Presented at the 230th ACS National Meeting, Washington, DC, August 2005 (ORGN 148)
26. A Rapid and Efficient Method for the Reduction of Nitrogen Heterocycles. Poppy, D. C.; McKinney, A. M. Jackson, K. R.; Smith, A. R.; **Salvatore, R. N.**; Savarides, E.-M.; Eddattel, M. J.; Gavin, T. E. Presented at the 230th ACS National Meeting, Washington, DC, August 2005 (ORGN 147)
27. CsOH-Promoted Direct Mono-*P*-Alkylation of Primary Phosphines: A Mild and Highly Chemoselective Synthetic Route toward Secondary and Disecondary Phosphines. Honaker, M. T. Sandefur, B. J.; Hargett, B. and **Salvatore, R. N.** Presented at the 230th ACS National Meeting, Washington, DC, August 2005 (ORGN 149).
28. Synthesis and Characterization of Bis-Diphosphine Complexes with Transition Metals.

McDaniel, A. L.; Honaker, M. T.; Davidson, K.; Pesterfield, L. L. and **Salvatore, R. N**. Presented at the 229th ACS National Meeting, San Diego, CA, March 2005 (INORG 319).

29. A Convenient and Highly Efficient of the Alkylation of Thiols Using Cs_2CO_3-TBAI. Smith, R.A. Nischwicz A. K.; **Salvatore, R. N.** Presented at the 228th ACS National Meeting, Philadelphia, PA, August 2004 (ORGN 617).
30. An Undergraduate Organic Chemistry Laboratory Experiment in Chirality: Isolation and Analysis of *d*-Limonene from a Variety of Citrus Fruits. McKinney, A.; Ruxer, J. T.; Smith, R. A.; **Salvatore, R. N**. Presented at the 228th ACS National Meeting, Philadelphia, PA, August 2004 (CHED 51).
31. A Novel and Highly Efficient Synthetic Route to Unsymmetrical Organoselenides. Cohen,
    R.; Fox, D.; **Salvatore, R. N**. Presented at the 226th ACS National Meeting, August 2004
    (ORGN 618).
32. A Mild, Efficient and Direct Synthesis of Phosphines, Phosphonates, and Their Derivatives via the 'Cesium Effect': Novel Synthetic Methodologies and Applications Toward Total Synthesis. **Salvatore, R. N**. Presented at the 16th International Conference on Phosphorus Chemistry (ICPC 2004), Birmingham, UK, July 2004.
33. A Mild and Highly Convenient Chemoselective Alkylation of Thiols Using Cs_2CO_3TBAI. Smith, R. A.; Kolb, K.; McDaniel, A. L.; **Salvatore, R. N.** Presented at the 2004 *Sigma Xi* Research Conference, April 2004.
34. Mild and Efficient Synthesis of Carbazates and Dithiocarbazates via a Three-Component Coupling Using Cs_2CO_3-TBAI. Fox, D. L.; Ruxer, J. T.; Oliver, J. M.; Alford, K. L.; **Salvatore, R. N**. Presented at the 2004 *Sigma Xi* Research Conference, April 2004.
35. A Novel and Highly Efficient Synthetic Route to Unsymmetrical Organoselenides Using Cesium Bases. Cohen, R. J.; Fox, D. L.; **Salvatore, R. N**. Presented at the 2004 *Sigma Xi* Research Conference, April 2004.
36. Preliminary Investigations on Organobarium Chemistry: Novel Mechanistic Concepts and Synthetic Applications. Ruxer, J. T.; Carter, J.; Simpson, J.; Fisher, D.; Jackson, K.; Larkin, S.; Holman, R. W.; **Salvatore, R. N.** Presented at the 2004 *Sigma Xi* Research Conference, April 2004.
37. Chirality: Isolation and Analysis of *d*-Limonene from a Variety of Citrus Fruits. McKinney, A.; Ruxer, J. T.; Smith, R. A.; **Salvatore, R. N.** Presented at the 2004 *Sigma Xi* Research Conference, April 2004.
38. Cs_2CO_3-Promoted Synthesis of Phosphonates and Phosphonodithioformates. Cohen, R. J.; Fox, D. L.; Eubank, J. F.; Whitely, N. R.; **Salvatore, R. N.** Presented at the 89th Annual Kentucky Academy of Science Meeting, Bowling Green, KY, November 2003 (Poster # 52).
39. CsOH-Promoted Epoxide Ring-Opening with Phosphines: Mild and Efficient Synthesis of Monohydroxyphosphines. Fox, D. L.; Robinson, A. A.; Frank, B.; **Salvatore, R. N.** Presented at the 89th Annual Kentucky Academy of Science Meeting, Bowling Green, KY, November 2003 (Poster # 46).
40. Mild and Efficient Synthesis of Carbazates and Dithiocarbazates via a ThreeComponent Coupling. Ruxer, J. T.; Fox, D. L.; Oliver, J. M.; Alford, K. L.; **Salvatore, R. N.**

Presented at the 89th Annual Kentucky Academy of Science Meeting, Bowling Green, KY, November 2003 (Poster # 48).

41. CsOH-Promoted *P*-Alkylation: A Convenient and Highly Efficient Synthesis of Substituted Phosphines. Sandefur, B. J.; Honaker, M. T.; Hargett, J. L.; McDaniel, A. L.; Garabato, B. D.; **Salvatore, R. N.** Presented at the 89th Annual Kentucky Academy of Science Meeting, Bowling Green, KY, November 2003 (Poster # 43).
42. Mild and Efficient Synthesis of Carbazates and Dithiocarbazates via a ThreeComponent Coupling Using Cs_2CO_3-TBAI. Fox, D. L.; Ruxer, J. T.; Oliver, J. M.; Alford, K. L.; **Salvatore, R. N.** Presented at the 55th Annual Southeast Regional Meeting of The American Chemical Society Meeting (SERMACS), Organic Division, Atlanta, GA, November 2003 (ORGN # 679).
43. CsOH-Promoted P-Alkylation: A Convenient and Highly Efficient Synthesis of Tertiary Phosphines. Honaker, M. T.; Sandefur, B. J.; Hargett, J. L.; McDaniel, A. L.; **Salvatore, R.N.** Presented at the 55th Annual Southeast Regional Meeting of The American Chemical
    Society Meeting (SERMACS), Organic Division, Atlanta, GA, November 2003 (ORGN # 658).
44. Synthesis and Characterization of Bis-Diphosphine Complexes with Transition Metals. McDaniel, A. L.; Honaker, M. T.; **Salvatore, R. N**.; Pesterfield, L. L. Presented at the 55th Annual Southeast Regional Meeting of The American Chemical Society Meeting (SERMACS), Inorganic Division, Atlanta, GA, November 2003 (INOR # 412).
45. CsOH-Promoted Epoxide Ring-Opening with Phosphines: Mild and Efficient Synthesis of Monohydroxyphosphines. Robinson, A. A.; Frank, B.; Fox, D. L. **Salvatore, R. N.** Presented at the 225th ACS Meeting at New York, NY, September 2003 (ORGN 120).
46. Highly Efficient Construction of the Carbon-Phosphorus Bond: A Novel Approach for the Synthesis of Structurally Diverse Organophosphorus Compounds Using Cesium Bases. **Salvatore, R. N.** Presented at the 226th ACS Meeting at New York, NY, September 2003. (ORGN 491).
47. Mild and Efficient Synthesis of Phosphonates and Phosphonodithioformates Using Cs_2CO_3-TBAI: Applications toward the Synthesis of Phosphonopeptides. Fox, D. L.; Cohen, R. J.; **Salvatore, R. N.** Presented at the 2003 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2003.
48. Cs_2CO_3-Promoted Chemoselective *N*-Alkylation of Hydrazines: Efficient Synthesis of Carbazates via a Three-Component Coupling and Efforts toward Azadepsipeptide Synthesis. Oliver, J.; Bradley, S.; Ruxer, J. T.; Joshi, V.; Alford, K.; **Salvatore, R. N.** Presented at the 2003 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2003.
49. CsOH-Promoted *P*-Alkylation: Highly Efficient Synthesis of Tertiary Phosphines and Their Metal Complexes. Sandefur, B.; Honaker, M. T.; Hargett, J.; McDaniel, A. L.; Pesterfield, L. L.; **Salvatore, R. N.** Presented at the 2003 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2003.
50. CsOH-Promoted Epoxide Ring-Opening: Efficient Synthesis of Monohydroxyphosphines. Robinson, A.; Frank, B.; Fox, D. L.; **Salvatore, R. N**. Presented at the 2003 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2003.

51. "Amazing Polymers'. Hobbs, A.; Honaker, M.; McCombs, M.; McDaniel, A.; **Salvatore, R.;** Pesterfield, L. Presented at the 225th ACS Meeting at New Orleans, LA, March 2003, (Division of Chemical Education).
52. CsOH-Promoted *P*-Alkylation: Highly Efficient Synthesis of Tertiary Phosphines and Their Metal Complexes. Honaker, M. T.; Sandefur, B.; McDaniel, A. L.; Pesterfield, L. L.; **Salvatore, R. N.** Presented at the 225th ACS Meeting at New Orleans, LA, March 2003, (poster # ORGN 373).
53. Fox, D. L.; Whitely, N. R.; Eubank, J. F.; **Salvatore, R. N.** Efficient Synthesis of Dialkyl-dithiophosphonates via a Three-Component Coupling of a Dialkylphosphite, CS_2, and an Alkyl Halide in the Presence of Cs_2CO_3-TBAI. Presented at the 224th ACS Meeting at Boston, MA, August 2002, (poster # ORGN 709).
54. Cohen, R. J.; Curtis, S. M.; Bennis, B. E.; **Salvatore, R. N.** An Improved Michaelis-Becker Reaction: Efficient Cs_2CO_3-Promoted Synthesis of Phosphonates and Derivatives.
    Presented at the 224th ACS Meeting at Boston, MA, August 2002, (poster # ORGN 710).
55. Fox, D. L.; Cohen, R. J.; Whitely, N. R.; **Salvatore, R. N.** Efficient Synthesis of Dialkyldithiophosphonates via a Three-Component Coupling Using a Dialkylphosphite, CS_2, and an Alkyl Halide in the Presence of Cs_2CO_3-TBAI. Presented at the 2002 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2002.
56. Bennis, B. E.; Curtis, S. M.; Eubank, J. F.; **Salvatore, R. N.** An Improved MichaelisBecker Reaction: Efficient Cs_2CO_3-Promoted Synthesis of Phosphonates and Derivatives. Presented at the 2002 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2002.
57. **Salvatore, R. N.;** Sahab, S.; Ledger, J.; Jung, K. W. Cs_2CO_3-Promoted MonoThiocarbonylation of Diols, Chemoselective Thiocarbamations of Diamines, and Efficient One-Pot Synthesis of *N*-Alkyl Carbamates. Presented at ACS's 37th National Organic Symposium in Montana, June 2001 (Poster # 185).
58. Sahab, S.; **Salvatore, R. N.**; Jung, K. W. Mild and Efficient Synthesis of Thiocarbonates and Thiocarbamates Utilizing Cs_2CO_3 and TBAI. Presented at The Raymond Castle Research Conference, University of South Florida, Tampa, FL, April 28, 2001 (Poster # 31).
59. Nagle, A. S**.; Salvatore, R. N.;** Jung, K. W. Application of (-Aminobromides towards Peptidomimetic Synthesis. Presented at The Raymond Castle Research Conference, University of South Florida, Tampa, FL, April 28, 2001 (Poster # 30).
60. Kim, S.-I.; **Salvatore, R. N.;** Flanders, V. L.; Jung, K. W. Efficient Carbamate Synthesis via a Three-Component Coupling. Presented at ACS's 218th National meeting in New Orleans, LA, August 1999, (Poster # ORGN 0348).
61. **Salvatore, R. N.**; Nagle, A. S.; Schmidt, S. E.; Jung, K. W. Selective *N*-Alkylation for Efficient Synthesis of Secondary Amines. Presented at ACS's 36th National Organic Symposium in Madison, WI, June 1999, (Poster # 234).
62. Nagle, A. S.; **Salvatore, R. N.;** Kim, S.-I.; Jung, K. W. Facile Method for the Preparation of Amino Bromides: A Key Intermediate for Coupling in Peptidomimetic Synthesis. Presented at the ACS's 36th National Organic Symposium in Madison, WI, June 1999, (Poster # 188).

63. Kim, S.-I.; Flanders, V. L.; Ha, D.; **Salvatore, R. N**.; Jung, K. W. Efficient Carbonate and Carbamate Synthesis via Three-Component Coupling on Solid Supports. Presented at the ACS's 36th National Organic Symposium in Madison, WI, June 1999, (Poster # 134).
64. **Salvatore, R. N.;** Schmidt, S. E.; Jung, K. W. Selective *N*-Alkylation for Efficient Synthesis of Secondary Amines. Presented at ACS's 217th national meeting in Anaheim, CA, March 1999, (Poster # ORGN 0239).
65. Schmidt, S. E.; **Salvatore, R. N.;** Worrell, J. H.; Jung, K. W. Synthesis and Characterization of a Tetradentate Ligand with the Donor Sequence NNSN for Complexation with Cobalt (III). Presented at ACS's 217th National Meeting in Anaheim, CA, March 1999, (Poster # INORG 0276).
66. **Salvatore, R. N.;** Schmidt, S. E.; Jung, K. W. Selective *N*-Alkylation for the Efficient Synthesis of Secondary Amines. Presented at the Sixteenth Annual Florida Organic Faculty Conference, Tampa, FL, February 27, 1999.
67. Schmidt, S. E.; **Salvatore, R. N.;** Worrell, J. H.; Jung, K. W. Synthesis and Characterization of a Tetradentate Ligand with the Donor Sequence NNSN for Complexation with Cobalt (III). Presented at the 16th Annual Florida Organic Faculty Conference, Tampa, FL, February 27, 1999.
68. **Salvatore, R. N**.; Organic Reactions in H_2O: A Critical Review: 16th Annual Florida Organic Faculty Meeting, University of South Florida, Tampa, FL 1999.

OTHER INVITED SEMINARS

(Academic and/or Industrial Seminars & National/Local Conferences)

1. **Salvatore, R. N.** "The Role of the Dean within a Successful Health & Sciences Division:, Pikes Peak Community College, Colorado Springs, CO May 2016.
2. **Salvatore, R. N.** "Photoelectric Effect: Wave-Particle Duality of Light, Pikes Peak Community College, Colorado Springs, CO August 2015.
3. **Salvatore, R. N.** "Undertaking Chemical Research at a Community College", Flagler College, St. Augustine, FL October 2015.
4. **Salvatore, R. N.** "Underground Existence of Research in Chemistry in Two-Year College Programs", Flagler College, St. Augustine, FL October 2015.
5. **Salvatore, R. N.** "Engaging Undergraduates in Chemical Research at Pueblo Community College", Flagler College, St. Augustine, FL October 2015.
6. **Salvatore, R. N.** "Cesium Effect: Mild and Efficient Synthesis of Carbon-Heteroatom Bonds", Bio-Frontiers Institute, University of Colorado, Boulder, December 2014.
7. **Salvatore, R. N.** "Building Knowledge & Skills through **STEAM** Education" Southwest Colorado Community College, December, 2014.
8. **Salvatore, R.N.** "Aligning the 2-Year Colorado Community College Curriculum in Chemistry for Direct Transfer to a Colorado 4-Year College or University, Fort Lewis College, December 2014.
9. **Salvatore, R. N.** Let's Not Forget the "A"-Full **'STEAM'** Ahead! (**STEAM = Science, Technology, Engineering, ARTS and Mathematics**) University of Colorado Boulder Springs, December 2014.

10. **Salvatore, R. N.** "STEM to STE**A**M–Recognizing the Value of Creative Skills in the Competitive Debate", University of Denver, December, 2014.
11. **Salvatore, R. N.** "STEM (Science, Technology, Engineering and Mathematics) + Arts/Design = STEAM" Florida Polytechnic University, Lakeland, FL, December, 2014.
12. **Salvatore, R. N.** "Green Chemistry: Chemical Reactions and Sustainability" Colorado State University Pueblo, Department of Engineering, December, 2014.
13. **Salvatore, R. N.** "Cesium Effect: Mild and Efficient Synthesis of Macrocycles, Macrolides and Heterocycles, Bio-Frontiers Institute, University of Colorado Colorado Springs, September 2014.
14. **Salvatore, R. N.** "Destination 2015: Implementation of the Strategic Plan, Broward College, Fort Lauderdale, FL October 2014.
15. **Salvatore, R. N.** "Organocuprate Chemistry: Structure, Mechanistic Insights, and Reactivity" Manhattanville College, 2012
16. **Salvatore, R. N:** "Green Chemistry: A Sonochemical Approach" Miami University, Florida, 2012.
17. **Salvatore, R .N.** "Explosives: The Chemistry of Energetic Compounds, a Historical and Synthetic Perspective". Brooklyn College-City University of New York, 2012
18. **Salvatore, R. N.** Stereo-electronic Effects Recent Advances and New Insights". New York University, 2012.
19. **Salvatore, R. N.** Synthesis of Organometallic Compounds: Metal Complexes of Group I, II & Select Transition Elements with Amines and Phosphines". ACS Meeting, April 2009.
20. **Salvatore, R. N. "**Onset Studies toward Approaches in Hyperconjugation Studies: **"**Mechanistic Studies, Theoretical Applications and Instrumental Methods toward the Structure and Reactivity of Various Adamantane Compounds" Columbia University, 2012.
21. **Salvatore, R. N.;** Organoiron Chemistry: Separation and Characterization of *cis*- and *trans*-Bis(cyclopentadienyldicarbonyliron) and Bis(cyclopentadienyldicarbonyltungsten) Isomers, ACS Meeting-2009 and FLOHET-2011.
22. **Salvatore, R. N.;** Fox; D.L.; Nischwitz, A. K.; Frey, J.; Pendelton, J. J. C.; Smith, R. A. "Silicon Heterocycles and Efforts Toward Silyl Peptidomimetics: Stabilization Effects in Substitution. ACS 2009, and FLOHET 2009.
23. **Salvatore, R. N.** Macrocycles with Heteroatom-Containing Aromatic Segments. FLOHET 2009.
24. **Salvatore, R. N.;** Hovland, J. M.; Lizardo, O.; Khorouba, C. "Theoretical Studies between the Aromaticity of Annulated Pyridine, Phosphabenzene, Silabenzene, Arsabenzene and Stibabenzene. College of Mt. St. Vincent, 2012.
25. **Salvatore, R. N.;** Hovland, J. M.; Khouraba, C., Lizardo, O. The Reaction of Phopsphabenzene, Arsabenzene, Silylbenzene and Stibabenzene with Organolithiums Reagents.
26. **Salvatore, R. N.;** Hovland, J. M.; Khouraba, C., Lizardo, O.; Prepartion of Tetrakis((1)-phosphabenzene)nickel and other transition metals.
27. **Salvatore, R. N**. "Synthesis of Phosphabenzene Compounds and Preparation of Coordination Compounds".
28. **Salvatore, R. N.** Electrophilic Substitution Reactions of Phosphabenzene: "An Entirely Unapproached Problem".
29. **Salvatore, R. N.** A Diels-Alder Reaction of 1, 3, 5-Triphosphabenzene and Phosphaphacetylene. "Comparison of Carbon and Nitrogen Analogues".

30. **Salvatore, R. N.** Hückel Molecular Orbital Models for Heterocycles with Tetra-Coordinated Phosphosphors Atoms.
31. **Salvatore, R. N.** What Accounts for the Remarkable Stability between Silabenzene and Phosphabenzene in Staibility of Dimerization?
32. **Salvatore, R. N.** Intramolecular [4+2] Diels-Alder Cycloadditions of 2-Substitute Phopshabenzene and Arsabenzene.
33. **Salvatore, R. N.** Peptidiomimetics and Chemical Biology, Synthesis and Applications of Artificial Biomolecules, Dept. of Biological Sciences, Lehman College-CUNY, Bronx, NY 10468, May 5, 2008.
34. **Salvatore, R. N.** Silicon Heterocycles: Hyperconjugation and Stabilization Effects in the Substitution of Furans, College of New Rochelle, New Rochelle, NY 10801, Spring 2008.
35. **Salvatore, R. N.** A Mild Reduction Protocol for Heterocycles, Amino-Acids, and Amino-Acid Derivatives, Department of Chemistry Dartmouth College, Hanover, NH, Winter 2008.
36. **Salvatore, R. N.** Marine Organic Chemistry: "Remedies from the Deep-Squalamine: An Aminosterol Antibiotic from the Shark". Department of Chemistry, Princeton University, Princeton, NJ, Spring 2008.
37. **Salvatore**, **R. N**. Novel Crown Carbonates: Synthesis and Applications as Therapeutic Agents, University of Southern California, LA, Spring, 2008.
38. **Salvatore, R. N.** Oxidation Reactions of Common Organic Functional Groups Using N_2O. Columbia University, New York, NY and Pace University, Spring 2008.
39. **Salvatore, R. N.** Remember Jaws? SQUALAMINE SLOWS TUMOR GROWTH. H. Lee Moffitt Cancer Center & Research Institute, Drug Discovery Laboratory, Tampa, FL, Spring, 2008.
40. **Salvatore, R. N.** An Overview of Marine Organic Chemistry: Novel Synthesis of Mimics and Natural Biological Craftsmanship, Concordia College, Bronxville, NY, Spring 2008.
41. **Salvatore, R. N.** "Microwave-Assisted Synthesis of Heterocycles: 9th Annual Florida Heterocyclic and Synthetic Conference (FLOHET 9), March 2008 (Gainesville, FL).
42. **Salvatore, R. N.** Heterocyclic Synthesis and Reactions via Organoironchemistry. European Conference on Heterocyclic Chemistry, (ECHC), 2008, (Australia).
43. **Salvatore, R. N.** Careers in Higher Education: Academic and Industrial Career Perspectives. Iona College, New Rochelle, NY, CSI Seminar Series, December 4, 2007.
44. **Salvatore, R. N**. "Quinoxaline and Allied Compounds: A Synthetic and Medicinal Perspective", Lehman College, Department of Biological Sciences, December, 2007.
45. Hovland, J. M; **Salvatore, R. N.** Aromatic and Saturated Heterocycles: Novel Concepts, New Reactions, and Robust Synthetic Applications, Lehman College, Department of Chemistry, April, 2007.
46. **Salvatore, R. N**. Introduction to Green Chemistry: PREVENTING POLLUTION & SUSTAINING THE EARTH! Lehman College, Department of Environmental Geographic Sciences, April, 2007.
47. **Salvatore, R. N.** "The Cesium Effect in Organic Synthesis" Lehman College, Department of Chemistry, April, 2007.
48. **Salvatore, R. N.** Academic Deanship: The Transitional Role from Chair to Dean. Hillsborough Community College (HCC), Tampa, FL, June 2007.
49. Hovland, J. M*;* **Salvatore, R. N.** "A Convenient Synthesis of 1, 2, 3, 4-Tetrahydroquinoxalines, 55th New York American Chemical Society Undergraduate

Research Symposium (NY ACS URS), Organic Division, Oral Presentation, Manhattan College, May, 2007.

50. **Salvatore, R. N.;** Holland. J. "Selective *N*-Alkylation's of Aromatic Amines", 234th National Meeting in Boston, MA, Medicinal Chemistry Division, August, 2007.
51. **Salvatore, R. N.;** Holland. J. "An Efficient and Operationally Convenient General Synthesis of Tertiary Amines By Direct N-Alkylation's of Secondary Amines and Heterocycles With Alkyl Halides in the Presence of CsOH", 234th National Meeting in Boston, MA, Medicinal Chemistry Division, August, 2007.
52. **Salvatore, R. N.** "The Cesium Effect in Organic Synthesis" 234th National Meeting in Boston, MA, Organic Division, August, 2007.
53. **Salvatore, R. N**. Preliminary Investigations on Organobarium Chemistry: Novel Mechanistic Concepts and Synthetic Applications. 234th National Meeting in Boston, MA, August, 2007.
54. **Salvatore, R. N**.; Hovland, J. "Quinoxaline and Allied Compounds" Synthetic Perspectives and Novel Reactions. 234th National Meeting in Boston, MA August, 2007.
55. **Salvatore, R. N.**; Hovland, J. An Environmentally Benign Effort toward Phosphorus-Carbon Heterocyles. 234th National Meeting in Boston, MA, August, 2007. 234th National Meeting in Boston, MA, April, 2007.
56. Hovland, J. M.; Kaplan, H.; **Salvatore, R. N.** CsOH-Promoted Aldol Condensation: A Mild and Efficient Synthesis of Chalkiness. American Chemical Society, New York Section, Manhattan College, May 2007.
57. Hovland, J. M.; **Salvatore, R. N.** Organometallic Chemistry: Separation and Characterization of *cis*- and *trans*-Bis(cyclopentadienyldicarbonyliron) and Bis(cyclopentadienyldicarbonyltungsten) Isomers. American Chemical Society, New York Section, Manhattan College, May 2007.
58. "Highly Efficient Carbon-Carbon and Carbon-Heteroatom Bond Formation: Novel Concepts, Reactions, and Syntheses", **Salvatore R.N.**, Department of Chemistry, Lehman College, City University of New York. Davis 108, USF-St. Petersburg and Tampa Bay American Chemical Society Meeting, April 4, 2007.
59. "An Introduction to Green Chemistry: 'Environmentally Benign by Style' for Sustaining the Earth and Preventing Pollution", **Salvatore, R.N.,** Department of Chemistry, Lehman College, City University of New York. Chase Auditorium, New College of Florida and Tampa Bay American Chemical Society Meeting April 5, 2007.
60. The Rationale Design, Chemical Synthesis and the Inherent Applications of Bio-mimetic Materials and the Synthesis of Artificial Bio-molecules: **Salvatore, R. N.,** University of Boston Dartmouth, University of Textiles Sciences, North Dartmouth, 285 Old Westport Road, North Dartmouth, MA 02747-2300., May 4th, 2006.
61. CsOH-Promoted Ring Closure for the Generally and Efficient Synthesis of Structurally Diverse Heterocycles. **Salvatore, R. N.;** Steinberg, J. A. Presented at the 231st ACS Meeting in Atlanta GA, March 2006 (ORGN 85).
62. Novel Applications of the 'Cesium Effect' in Organic Synthesis: Regioselective Ring-Opening of Epoxides with Phenylselenol for the Preparation of (α-Hydroxy-Selenides and a Mild and Highly Efficient Synthesis of Organosilanes Using CsOH. Nischwitz, A. K.; Frey, J.; Pendelton, J. J. C.; Smith, R. A.; **Salvatore, R. N.** Presented at the 230th ACS National Meeting, Washington, DC, August 2005 (ORGN 148).
63. A Rapid and Efficient Method for the Reduction of Nitrogen Heterocycles. Poppy, D. C.; McKinney, A. M. Jackson, K. R.; Smith, A. R.; **Salvatore, R. N**.; Savarides, E.-M.;

Eddattel, M. J.; Gavin, T. E. Presented at the 230th ACS National Meeting, Washington, DC, August 2005 (ORGN 147).

64. CsOH-Promoted Direct Mono-*P*-Alkylation of Primary Phosphines: A Mild and Highly Chemoselective Synthetic Route toward Secondary and Disecondary Phosphines. Honaker, M. T. Sandefur, B. J.; Hargett, B.; **Salvatore, R. N.** Presented at the 230th ACS National Meeting, Washington, DC, August 2005 (ORGN 149).
65. Synthesis and Characterization of Bis-Diphosphine Complexes with Transition Metals. McDaniel, A. L.; Honaker, M. T.; Davidson, K.; Pesterfield, L. L. and **Salvatore, R. N.** Presented at the 229th ACS National Meeting, San Diego, CA March 2005 (INORG 319).
66. A Convenient and Highly Efficient of the Alkylation of Thiols Using Cs_2CO_3-TBAI. Smith, R.A. Nischwicz A. K.; **Salvatore, R. N.** Presented at the 228th ACS National Meeting, Philadelphia, PA, August 2004 (ORGN 617).
67. An Undergraduate Organic Chemistry Laboratory Experiment in Chirality: Isolation and Analysis of *d*-Limonene from a Variety of Citrus Fruits. McKinney, A.; Ruxer, J. T.; Smith, R. A.; **Salvatore, R. N**. Presented at the 228th ACS National Meeting, Philadelphia, PA, August 2004 (CHED 51).
68. A Novel and Highly Efficient Synthetic Route to Unsymmetrical Organoselenides. Cohen, R.; Fox, D.; **Salvatore, R. N.** Presented at the 226th ACS National Meeting, August 2004 (ORGN 618).
69. **Salvatore, R. N.** A Mild, Efficient and Direct Synthesis of Phosphines, Phosphonates, and Their Derivatives via the 'Cesium Effect': Novel Synthetic Methodologies and Applications toward Total Synthesis. Presented at the 16th International Conference on Phosphorus Chemistry (ICPC 2004), Birmingham, UK, July 2004.
70. A Mild and Highly Convenient Chemoselective Alkylation of Thiols Using Cs_2CO_3-TBAI. Smith, R. A.; Kolb, K.; McDaniel, A. L.; **Salvatore, R. N.** Presented at the 2004 *Sigma Xi* Research Conference, April 2004.
71. Mild and Efficient Synthesis of Carbazates and Dithiocarbazates via a Three-Component Coupling Using Cs_2CO_3-TBAI. Fox, D. L.; Ruxer, J. T.; Oliver, J. M.; Alford, K. L.; **Salvatore, R. N.** Presented at the 2004 *Sigma Xi* Research Conference, April 2004.
72. A Novel and Highly Efficient Synthetic Route to Unsymmetrical Organoselenides Using Cesium Bases. Cohen, R. J.; Fox, D. L.; **Salvatore, R. N.** Presented at the 2004 *Sigma Xi* Research Conference, April 2004.
73. Preliminary Investigations on Organobarium Chemistry: Novel Mechanistic Concepts and Synthetic Applications. Ruxer, J. T.; Carter, J.; Simpson, J.; Fisher, D.; Jackson, K.; Larkin, S.; Holman, R. W.; **Salvatore, R. N**. Presented at the 2004 *Sigma Xi* Research Conference, April 2004.
74. Chirality: Isolation and Analysis of *d*-Limonene from a Variety of Citrus Fruits. McKinney, A.; Ruxer, J. T.; Smith, R. A.; **Salvatore, R. N**. Presented at the 2004 *Sigma Xi* Research Conference, April 2004.
75. Cs_2CO_3-Promoted Synthesis of Phosphonates and Phosphonodithioformates. Cohen, R. J.; Fox, D. L.; Eubank, J. F.; Whitely, N. R.; **Salvatore, R. N.** Presented at the 89th Annual Kentucky Academy of Science Meeting, Bowling Green, KY, November 2003 (Poster # 52).
76. CsOH-Promoted Epoxide Ring-Opening with Phosphines: Mild and Efficient Synthesis of Monohydroxyphosphines. Fox, D. L.; Robinson, A. A.; Frank, B.; **Salvatore, R. N.** Presented at the 89th Annual Kentucky Academy of Science Meeting, Bowling Green, KY, November 2003 (Poster # 46).

77. Mild and Efficient Synthesis of Carbazates and Dithiocarbazates via a Three-Component Coupling. Ruxer, J. T.; Fox, D. L.; Oliver, J. M.; Alford, K. L.; **Salvatore, R. N.** Presented at the 89th Annual Kentucky Academy of Science Meeting, Bowling Green, KY, November 2003 (Poster # 48).
78. CsOH-Promoted *P*-Alkylation: A Convenient and Highly Efficient Synthesis of Substituted Phosphines. Sandefur, B. J.; Honaker, M. T.; Hargett, J. L.; McDaniel, A. L.; Garabato, B. D.; **Salvatore, R. N.** Presented at the 89th Annual Kentucky Academy of Science Meeting, Bowling Green, KY, November 2003 (Poster # 43).
79. Mild and Efficient Synthesis of Carbazates and Dithiocarbazates via a Three-Component Coupling Using Cs_2CO_3-TBAI. Fox, D. L.; Ruxer, J. T.; Oliver, J. M.; Alford, K. L.; **Salvatore, R. N.** Presented at the 55th Annual Southeast Regional Meeting of The American Chemical Society Meeting (SERMACS), Organic Division, Atlanta, GA, November 2003 (ORGN # 679).
80. CsOH-Promoted P-Alkylation: A Convenient and Highly Efficient Synthesis of Tertiary Phosphines. Honaker, M. T.; Sandefur, B. J.; Hargett, J. L.; McDaniel, A. L.; **Salvatore, R. N.** Presented at the 55th Annual Southeast Regional Meeting of The American Chemical Society Meeting (SERMACS), Organic Division, Atlanta, GA, November 2003 (ORGN # 658).
81. Synthesis and Characterization of Bis-Diphosphine Complexes with Transition Metals. McDaniel, A. L.; Honaker, M. T.; **Salvatore, R. N.;** Pesterfield, L. L. Presented at the 55th Annual Southeast Regional Meeting of The American Chemical Society Meeting (SERMACS), Inorganic Division, Atlanta, GA, November 2003 (INOR # 412).
82. CsOH-Promoted Epoxide Ring-Opening with Phosphines: Mild and Efficient Synthesis of Monohydroxyphosphines. Robinson, A. A.; Frank, B.; Fox, D. L. **Salvatore, R. N.** Presented at the 225th ACS Meeting at New York, NY, September 2003 (ORGN 120).
83. Highly Efficient Construction of the Carbon-Phosphorus Bond: A Novel Approach for the Synthesis of Structurally Diverse Organophosphorus Compounds Using Cesium Bases. **Salvatore, R. N.** Presented at the 226th ACS Meeting at New York, NY, September 2003. (ORGN 491).
84. Mild and Efficient Synthesis of Phosphonates and Phosphonodithioformates Using Cs_2CO_3-TBAI: Applications toward the Synthesis of Phosphonopeptides. Fox, D. L.; Cohen, R. J.; **Salvatore, R. N.** Presented at the 2003 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2003.
85. Cs_2CO_3-Promoted Chemoselective *N*-Alkylation of Hydrazines: Efficient Synthesis of Carbazates via a Three-Component Coupling and Efforts toward Azadepsipeptide Synthesis. Oliver, J.; Bradley, S.; Ruxer, J. T.; Joshi, V.; Alford, K.; **Salvatore, R. N.** Presented at the 2003 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2003.
86. CsOH-Promoted *P*-Alkylation: Highly Efficient Synthesis of Tertiary Phosphines and Their Metal Complexes. Sandefur, B.; Honaker, M. T.; Hargett, J.; McDaniel, A. L.; Pesterfield, L. L.; **Salvatore, R. N.** Presented at the 2003 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2003.
87. CsOH-Promoted Epoxide Ring-Opening: Efficient Synthesis of Monohydroxyphosphines. Robinson, A.; Frank, B.; Fox, D. L.; **Salvatore, R. N.** Presented at the 2003 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2003.

88. 'Amazing Polymers'. Hobbs, A.; Honaker, M.; McCombs, M.; McDaniel, A.; **Salvatore, R.;** Pesterfield, L. Presented at the 225th ACS Meeting at New Orleans, LA, March 2003, (Division of Chemical Education).
89. CsOH-Promoted *P*-Alkylation: Highly Efficient Synthesis of Tertiary Phosphines and Their Metal Complexes. Honaker, M. T.; Sandefur, B.; McDaniel, A. L.; Pesterfield, L. L.; **Salvatore, R. N.** Presented at the 225th ACS Meeting at New Orleans, LA, March 2003, (poster # ORGN 373).
90. Fox, D. L.; Whitely, N. R.; Eubank, J. F.; **Salvatore, R. N.** Efficient Synthesis of Dialkyldithiophosphonates via a Three-Component Coupling of a Dialkylphosphite, CS_2, and an Alkyl Halide in the Presence of Cs_2CO_3-TBAI. Presented at the 224th ACS Meeting at Boston, MA, August 2002, (poster # ORGN 709).
91. Cohen, R. J.; Curtis, S. M.; Bennis, B. E.; **Salvatore, R. N.** An Improved Michaelis-Becker Reaction: Efficient Cs_2CO_3-Promoted Synthesis of Phosphonates and Derivatives. Presented at the 224th ACS Meeting at Boston, MA, August 2002, (poster # ORGN 710).
92. Fox, D. L.; Cohen, R. J.; Whitely, N. R.; **Salvatore, R. N.** Efficient Synthesis of Dialkyldithiophosphonates via a Three-Component Coupling Using a Dialkylphosphite, CS_2, and an Alkyl Halide in the Presence of Cs_2CO_3-TBAI. Presented at the 2002 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2002.
93. Bennis, B. E.; Curtis, S. M.; Eubank, J. F.; **Salvatore, R. N.** An Improved Michaelis-Becker Reaction: Efficient Cs_2CO_3-Promoted Synthesis of Phosphonates and Derivatives. Presented at the 2002 *Sigma Xi* Student Research Conference at Western Kentucky University, April 2002.
94. **Salvatore, R. N.**; Sahab, S.; Ledger, J.; Jung, K. W. Cs_2CO_3-Promoted Mono-Thiocarbonylation of Diols, Chemoselective Thiocarbamations of Diamines, and Efficient One-Pot Synthesis of *N*-Alkyl Carbamates. Presented at ACS's 37th National Organic Symposium in Montana, June 2001 (Poster # 185).
95. Sahab, S.; **Salvatore, R. N.;** Jung, K. W. Mild and Efficient Synthesis of Thiocarbonates and Thiocarbamates Utilizing Cs_2CO_3 and TBAI. Presented at The Raymond Castle Research Conference, University of South Florida, Tampa, FL April 28, 2001 (Poster # 31).
96. Nagle, A. S.; **Salvatore, R. N.**; Jung, K. W. Application of (-Aminobromides towards Peptidomimetic Synthesis. Presented at The Raymond Castle Research Conference, University of South Florida, Tampa, FL, April 28, 2001 (Poster # 30).
97. Kim, S.-I.; **Salvatore, R. N.**; Flanders, V. L.; Jung, K. W. Efficient Carbamate Synthesis via a Three-Component Coupling. Presented at ACS's 218th National meeting in New Orleans, LA, August 1999, (Poster # ORGN 0348).
98. **Salvatore, R. N.;** Nagle, A. S.; Schmidt, S. E.; Jung, K. W. Selective *N*-Alkylation for Efficient Synthesis of Secondary Amines. Presented at ACS's 36th National Organic Symposium in Madison, WI, June 1999, (Poster # 234).
99. Nagle, A. S.; **Salvatore, R. N.;** Kim, S.-I.; Jung, K. W. Facile Method for the Preparation of Amino Bromides: A Key Intermediate for Coupling in Peptidomimetic Synthesis. Presented at the ACS's 36th National Organic Symposium in Madison, WI, June 1999, (Poster # 188).
100. Kim, S.-I.; Flanders, V. L.; Ha, D.; Salvatore, R. N.; Jung, K. W. Efficient Carbonate and Carbamate Synthesis via Three-Component Coupling on Solid Supports. Presented at the ACS's 36th National Organic Symposium in Madison, WI, June 1999, (Poster # 134).

101. **Salvatore, R. N.;** Schmidt, S. E.; Jung, K. W. Selective *N*-Alkylation for Efficient Synthesis of Secondary Amines. Presented at ACS's 217th national meeting in Anaheim, CA, March 1999, (Poster # ORGN 0239).
102. Schmidt, S. E.; **Salvatore, R. N.;** Worrell, J. H.; Jung, K. W. Synthesis and Characterization of a Tetradentate Ligand with the Donor Sequence NNSN for Complexation with Cobalt (III). Presented at ACS's 217th National Meeting in Anaheim, CA, March 1999, (Poster # INORG 0276).
103. **Salvatore, R. N.;** Schmidt, S. E.; Jung, K. W. Selective *N*-Alkylation for the Efficient Synthesis of Secondary Amines. Presented at the Sixteenth Annual Florida Organic Faculty Conference, Tampa, FL February 27, 1999.
104. Schmidt, S. E.; **Salvatore, R. N.;** Worrell, J. H.; Jung, K. W. Synthesis and Characterization of a Tetradentate Ligand with the Donor Sequence NNSN for Complexation with Cobalt (III). Presented at the 16th Annual Florida Organic Faculty Conference, Tampa, FL, February 27, 1999.
105. **Salvatore, R. N.**; Organic Reactions in H_2O: A Critical Review: 16th Annual Florida Organic Faculty Meeting, University of South Florida, Tampa, FL 1999.
106. **Salvatore, R. N**. Aromatic and Saturated Heterocycles: Novel Concepts, New Reactions, and Robust Synthetic Applications. Plenary speaker at the XXII European Conference in Heterocyclic Chemistry (ECHC), University of Bari, Italy, September 6, 2006, (IL13).
107. **Salvatore, R. N**. Highly Efficient Construction of the Carbon-Phosphorus Bond: Novel Approaches Toward the Synthesis of Structurally Diverse Organophosphorus Compounds and Their Inherent Applications. Presented at Supresta U.S. LLC, Ardsley Park, 430 Saw Mill River Road, Ardsley, NY 10502, (June 6, 2006).
108. **Salvatore R. N**. Design and Synthesis toward the Development of Novel Bio-mimetic Materials, and Artificial Bio-molecules. Presented at the Department of Materials and Textiles, The University of Massachusetts Dartmouth, 285 Old Westport Rd. N. Dartmouth, MA, 02747. May 5, 2006.
109. **Salvatore, R. N.** Mild and Efficient Synthetic Routes for the Formation of Carbon-Heteroatom Bond and Carbon-Carbon Bonds. Herbert H. Lehman College, The City University of New York, Davis Hall 317, 250 Bedford Park Boulevard West, Bronx, New York, 10468-1589, February 22, 2006.
110. **Salvatore, R. N.** The Chemistry of Heterocycles: New Structures, Concepts and Applications, Department of Chemistry, Dartmouth College, NH, May 2, 2006.
111. **Salvatore, R. N**. An Expedient and Highly Efficient Method for the Reduction of Nitrogen Heterocycles. Plenary Speaker. Invited Lecture by Professor Alan R. Katritzky. Presented at the 7th Florida Heterocyclic Conference (FLOHET 7), Gainesville, FL March 12-15, 2006.
112. **Salvatore, R. N.** Mild and Efficient Synthetic Routes for the Formation of Carbon-Heteroatom Bond and Carbon-Carbon Bonds. University of South Florida, Department of Chemistry, Tampa, FL, January 12, 2006.
113. **Salvatore, R. N.** Efficient Cesium-Promoted Alkylations and Facile C-C Bond Formation via Organobarium Chemistry: Novel Synthetic Methodologies and Applications toward Total Synthesis. The University of North Carolina-Charlotte (UNCC), Department of Chemistry, Charlotte, NC, January 2005.
114. **Salvatore, R. N.** Efficient Cesium-Promoted Alkylations and Facile C-C Bond Formation via Organobarium Chemistry: Novel Synthetic Methodologies and Applications toward Total Synthesis. Auburn University, Department of Chemistry, Auburn, AL, January 2005.

115. **Salvatore, R. N.** Organic Synthesis Using Group I & II Elements: Efficient Synthetic Methodologies, Novel Mechanistic Insights and Applications toward Total Synthesis. Presented at Fordham University, Department of Chemistry, New York, NY, February 2005.
116. **Salvatore, R. N**. Efficient Cesium-Promoted Alkylations and Facile C-C Bond Formation via Organobarium Chemistry: Novel Synthetic Methodologies and Applications toward Total Synthesis. Presented at Georgia Southern University, Department of Chemistry, Statesboro, GA, January 2005.
117. **Salvatore, R. N.** Efficient Cesium-Promoted Alkylations and Facile C-C Bond Formation via Organobarium Chemistry: Novel Synthetic Methodologies and Applications Toward Total Synthesis. Presented at Rollins College, Department of Chemistry, Orlando, FL, January 2005.
118. **Salvatore, R. N.** Efficient Cesium-Promoted Alkylations and Organobarium Chemistry: Novel Synthetic Methodologies, Interesting Mechanistic Insights, and Applications toward Total Synthesis and Heterocycles. Presented at The University of Massachusetts Boston, Department of Chemistry, Boston, MA, January 2005.
119. **Salvatore, R. N.** Efficient Cesium-Promoted Alkylations and Organobarium Chemistry: Novel Synthetic Methodologies, Interesting Mechanistic Insights, and Applications toward Total Synthesis and Heterocycles. Presented at The University of Florida, The Department of Chemistry, Gainesville, FL, April 2005.
120. **Salvatore, R. N**. Efficient Cesium-Promoted Alkylations and Organobarium Chemistry: Novel Synthetic Methodologies, Interesting Mechanistic Insights, and Applications Toward Total Synthesis and Heterocycles. Presented at Florida Institute of Technology (FIT), Department of Chemistry, Melbourne, FL March 2005.
121. **Salvatore, R. N**. Efficient Synthesis of Carbon-Heteroatom and Carbon-Carbon Bond Formation. Presented at Barry University, Department of Chemistry, Miami, FL, March 2005.
122. **Salvatore, R. N.** Efficient Synthesis of Carbon-Heteroatom and Carbon-Carbon Bond Formation. Presented at Nova Southeastern University, South Florida ACS Regional Meeting, Fort Lauderdale, FL March 2005.
123. **Salvatore, R. N.** Mild and Efficient Synthetic Routes toward The Formation of Carbon-Heteroatom Bond and Carbon-Carbon Bonds. Presented at University of Massachusetts Boston, Graduate Seminar September 2005.
124. **Salvatore, R. N.** Efficient Cesium-Promoted Alkylations and Facile C-C Bond Formation via Organobarium Chemistry: Novel Synthetic Methodologies and Applications Toward Total Synthesis. Presented at University of Alabama, Department of Chemistry, Tuscaloosa, AL November 2004.
125. **Salvatore, R. N.** Efficient Cesium-Promoted Alkylations and Facile C-C Bond Formation via Organobarium Chemistry: Novel Synthetic Methodologies and Applications toward Total Synthesis. Presented at Kennesaw State University, The Department of Chemistry, Kennesaw, GA, November 2004.
126. **Salvatore, R. N**. Efficient Cesium-Promoted Alkylations and Facile C-C Bond Formation via Organobarium Chemistry: Novel Synthetic Methodologies and Applications toward Total Synthesis. Presented at California State University, The Department of Chemistry and Biochemistry, Fullerton, CA, December 2004.
127. **Salvatore, R. N.** Efficient Cesium-Promoted Alkylations and Facile C-C Bond Formation via Organobarium Chemistry: Novel Synthetic Methodologies and Applications Toward

Total Synthesis. Presented at The University of Maine, Department of Chemistry, Orono, ME December 2004.

128. **Salvatore, R. N.** Efficient Cesium-Promoted Alkylations and Facile C-C Bond Formation via Organobarium Chemistry: Novel Synthetic Methodologies and Applications toward Total Synthesis. Presented at Brooklyn College-The City University of New York, Department of Chemistry, Brooklyn, NY December, 2004.
129. **Salvatore, R. N.** Cesium Effect: Novel Mechanistic Concepts and Synthetic Applications. Presented at the 4th Annual Excellence in Undergraduate Chemical Research Symposium, Indiana University, Department of Chemistry, Bloomington, Indiana September 2004.
130. **Salvatore, R. N**. Efficient Cesium-Promoted Alkylation's and Facile C-C Bond Formation via Organobarium Chemistry: Novel Synthetic Methodologies and Applications toward Total Synthesis. Presented at Eastern Kentucky University, Department of Chemistry, Richmond KY October 2004.
131. **Salvatore, R. N.** Efficient Cesium-Promoted Alkylation's and Facile C-C Bond Formation via Organ barium Chemistry: Novel Synthetic Methodologies and Applications toward Total Synthesis. Presented at University of Kentucky, Department of Chemistry, Lexington KY October 2004.
132. **Salvatore, R. N.**. Efficient Cesium-Promoted Alkylation's and Facile C-C Bond Formation via Organobarium Chemistry: Novel Synthetic Methodologies and Applications toward Total Synthesis. Presented at The University of Central Florida, Department of Chemistry, Orlando, FL November 2004.
133. **Salvatore, R. N.** A Mild, Efficient and Direct Synthesis of Phosphines, Phosphonates, and Their Derivatives via the 'Cesium Effect': Novel Synthetic Methodologies and Applications towards Total Synthesis. Presented at the 16th International Conference on Phosphorus Chemistry (ICPC 2004), Oral Papers for Phosphine Chemistry Birmingham, UK July 2004.
134. **Salvatore, R. N.** Bringing Organic Synthesis into the Modern World: The Organic Chemist's Role in the Health Profession. Presented at Iona College, Departments of Biology, Chemistry and Physics (Science Seminar Series), March 2004.
135. **Salvatore, R. N.** Efficient Cesium-Promoted Alkylations and Facile C-C Bond Formation via Organobarium Chemistry: Novel Synthetic Methodologies and Applications toward Total Synthesis. Presented at The City College of New York (CUNY-CCNY), Manhattan, New York December 2003.
136. **Salvatore, R. N.**. Cesium Base-Promoted *P*-Alkylations: Efficient Syntheses of Phosphines and Phosphonates and Efforts toward the Total Synthesis of Phosphine Macrocycles. Presented at Western Kentucky University, Bowling Green, KY September 2002.
137. **Salvatore, R. N.**. Cesium Effect: Novel Mechanistic Concepts and Synthetic Applications. Presented at Chemistry Research Experiences at Western Kentucky University (CREW DAY), Bowling Green, KY October 2001.
138. **Salvatore, R. N.**. Cesium Effect: Synthetic Methodologies toward Artificial Biomolecules. Presented at the University of South Florida, Department of Chemistry, Tampa, FL April 2002.
139. **Salvatore, R. N.** Efficient Oxidation Reactions of Organic Compounds Using Nitrogen Dioxide (N_2O), University of South Florida, Tampa FL. Spring 1999.
140. **Salvatore, R. N.**. Cesium Effect: Novel Mechanistic Concepts and Applications. Presented at Angelo State University, San Angelo TX January 2001.

141. **Salvatore, R. N.** Cesium Effect: Novel Synthesis Toward Artificial Biomolecules. Presented at Whittier College, Whittier, CA January 2001.
142. **Salvatore, R. N.** Cesium Effect: Novel Mechanistic Concepts and Synthetic Applications. Presented at Western Kentucky University, Bowling Green, KY January 2001.

HONORS & AWARDS

1. American Chemical Society Faculty Travel Award, Division of Organic Chemistry (June 2003, 2006, 2007, 2014).
2. National Organic Symposium Faculty Travel Awards, Organic Chemistry Division of the ACS, 2004, 2007.
3. Honorary Doctorate in Science, D.Sc. (*honoris causa*) University of Canterbury, 2006.
4. Outstanding Faculty Achievement Award in Research and Creativity in the Ogden College of Science and Engineering, Western Kentucky University (April 2003).
5. George Bursa Award for Outstanding Graduate Achievement in Chemistry, University of South Florida 2000).
6. Tharpe Outstanding Publication Award (University of South Florida, 2000, 2001).
7. Tharpe Outstanding First Year Graduate Student Award in Chemistry (University of South Florida, 1999)
8. Tharpe Outstanding Teaching Assistant Award (University of South Florida, 1999) Tharpe Travel Award, (University of South Florida, 1999, 2000).
9. Dean's List, Iona College (1992, 1993).\Alumni Foundation-University of South Florida.
10. Alumni Foundation-SUNY Stony Brook.
11. Alumni Foundation-Iona College.
12. Alumni Foundation -Sacred Heart High School.
13. Alumni Foundation-University of South Florida Alumni Foundation-Sacred Heart High School.
14. Alumni Foundation and Principal Advisory Committee, Sacred Heart High School, Yonkers
15. Chair and Moderator of The Arthur Sweeney Lecture Series, The Department of Chemistry, Lehman College, European Conference of Heterocyclic Conferences, American Chemical Society Conferences (Organic Division), National Organic Symposium.
16. ACS Flourine Division.

RESEARCH SUPPORT

Funded & Submitted Proposals

1. Synthesis of Novel Phosphono-Cavitands and Subsequent Metal Complexes, National Science Foundation, (grant in preparation) 2016.

2. A Novel Synthesis of Dopal: An Important Precursor toward Dopamine: A Potential Target for Neuroprotective Therapy in Parkinson's Disease, National Institute of Health, (grant in preparation) 2016.
3. The STEM Equity Pipeline Project is funded by the National Science Foundation (NSF), Human Resources Development, Research on Gender in Science and Engineering Program (Grant No. HRD-0734056 and HRD-1203121). This grant is an Extension Services Grant of the Research on Gender in Science and Engineering Programs.
4. Carl D. Perkins Funding (Carl D. Perkins Vocational and Technical Education Act); administered through the US Department of Education. $800,000.00 earmarked for Engineering, Engineering Technology and STEM initiatives. Sept. 1, 2014-2017.
5. Consortium for Healthcare Education Online (CHEO Grant) $1,400,000.00, Department of Labor, 2011-2014.
6. Developing Hispanic Institutions Program (Title V), "First Year Experiences", Department of Education, $280,000.
7. TRIO, Upward Bound Grant, (grant submitted), 2014-
8. TRIO Programs-STEM Initiatives (grant submitted), 2014-
9. TRIO, Veterans Upward Bound, (grant submitted), 2014-
10. Research Foundation, CUNY-Compact, Lehman College-City University of New York, $198,000. September 1, 2006-September 2010
11. A Mild and Practical Synthesis of Polyfunctional Heterocycles and Derivatives, Teledyne-Isco Organic Purification System Grant Program Application, $5,000.00; February-May 2006
12. ACS Division of Organic Chemistry Faculty Travel Award to ACS Meeting, Boston, MA, August 2007.
13. Recipient of the National Organic Symposium Award (NOS), Division of Organic Chemistry Sponsored Travel Award to Duke University, Durham, NC, $600.00, Funded, June 3-7 2007.
14. Faculty Scholarship Grant to attend the 4th Annual International Microwaves in Chemistry Conference, CEM Corporation, Orlando, FL $1,000.00, Funded, March, 2006.
15. "Acquisition of a Bench-top Microwave Reactor for Teaching and Research Laboratory Experiments": A Green Approach. CEM Microwave Corporation. $7,000.00, 2006.
16. University of Massachusetts, Boston, Department of Chemistry, Start-Up Funding, $100,000.00, Period: 2 years, October 2005.
17. Research Corporation (Cottrell Science Awards) "New Investigations on Organobarium Chemistry: Novel Mechanistic Concepts and Synthetic Applications", $46,494.00, Period: 2 years, May 2005-2007.
18. National Science Foundation-KY EPSCoR, "Facile C-C Bond Formation Using Frontier Organobarium Reagents, Applications toward the Synthesis of Dopal and Verapamil" $25,000.00, Period: 1 year March 2004.
19. National Science Foundation, Major Research Instrumentation Program (MRI) Proposal for a 500 MHz JEOL-Nuclear Magnetic Resonance Spectrometer. $349,200.00. Serve as a Co-Principle Investigator. Joint proposal with Drs. Holman, Salvatore, Pesterfield, Shon and Williams. Funded: 2001.
20. Materials Characterization Center, Faculty Grants Program, Western Kentucky University, "Synthesis and Investigations of Phosphine Macrocycles as Potential Metal Extractants", $5,000.00, Period 2003-2004.
21. Regular Faculty Fellowship Grant, Western Kentucky University, "CsOH-Promoted *P*-Alkylation: A Convenient and Highly Efficient Synthesis of Tertiary Phosphines and Their Metal Complexes", $1,000.00, Period 2003-2004.

22. National Science Foundation-KY-EPSCoR, "Cesium Base-Promoted Chemoselective *P*-Alkylations for the Generally Efficient Synthesis of Substituted Phosphines" $25,000.00, Period: 1 year, April 2002.
23. Junior Faculty Scholarship Program, Western Kentucky University, "A Novel Cesium Base-Promoted Phosphorus Alkylation: Mild and Efficient Synthesis of Phosphonic Acid Derivatives." $4,000.00, Period: 2001-2002.
24. Funds from the Applied Research and Technology Program (A.R.T.P.) and Program of Distinction (P.O.D.), Western Kentucky University, through the Materials Characterization Center, "Cesium Effect: Highly Efficient P-C and N-C Bond Formation for the Generally Efficient Synthesis of Phosphonic Acid and Hydrazine Derivatives" $13,000.00, Period: 2001-2004.
25. Faculty Scholarship Grant, Western Kentucky University, "Efficient Synthesis of Dialkyldithiophosphonates via a Three-Component Coupling of a Dialkylphosphite, CS_2, and a Alkyl Halide in the Presence of Cs_2CO_3 and TBAI" $1,000.00, Period: 2002-2003.
26. Summer Faculty Scholarship, Western Kentucky University, "Cesium Base-Promoted Chemoselective *N*-Alkylations for the Generally Efficient Synthesis of Substituted Hydrazines" $5,000.00, Period 2002-2003.
27. Faculty Travel Awards to the American Chemical Society Meetings: Total: $12,772.00. Awarded for the 223rd-229th National Meetings, 2001-2006.
28. Faculty Travel Award to the National Organic Symposium, American Chemical Society, Organic Chemistry Divisions(s), 2003. $500.00 and 2007 $600.00 (Duke University)
29. Chemetall Chemical Products, Inc. Berkeley Heights, NJ. Generous Supply of Cesium Bases and Barium Reagents for the use in Organic Reactions, 2001-present.
30. Dupont Chemicals, "Novel Monoacetylation of Diamines": Generous supply of Diamines for Chemoselective Mono-*N*-acylation, 2003.
31. BASF Corporation, Evans City, PA 16033. Generous Supply of Specialty Boranes and Borohydride Reagents for the Reduction of Heterocycles, 2003-2006.
32. FMC-Lithium Corporation, Generous Supply of Organolithium and Cesium Bases, 2006-present.

CURRENT RESEARCH COLLABORATIONS

1. Collaboration with ***Professor Robert W. Holman, Department of Chemistry, Idaho State University, Pocatello, ID 83204.*** Our research projects entail the synthetic/mechanistic investigations of organobarium and organolithium reagents, the assessment of the 'Cesium Effect', multinuclear Nuclear Magnetic Resonance (NMR) (Ba, Cs, P, N and Li) to probe reactive intermediates.

2. **Collaboration with Professor *Shaun E. Schmidt, Professor of Chemistry, Washburn, University, Department of Chemistry, Topeka. Kansas. 66621***. Our joint collaboration, entails the resolution of isomers and elucidation of properties of Cobalt (III) Complexes Containing 1,8-Diamino-3-thia-6-azaoctane, a Ligand with the Donor Sequence NNSN. Also, Coordination of NNSN to cobalt (III). Future work on this project includes purification and identification of optical isomers followed by the investigation of catalytic activity. Fabrication and Utilization

of
Tetrahedral"CageHostage"Systems:[4^6]Adamanzanezinc(II)and[3^6]Adamanzanezinc (II). Elucidation of the Basis of Chemical Shifts in the ^{1}H and ^{13}C Nuclear Magnetic Resonance Spectrum of Diamagnetic Transition Metal Coordination Complexes. In addition, resolution of isomers and elucidation of Properties of Cobalt (III) Complexes Containing 1,8-Diamino-3-thia-6-azaoctane, a Ligand with the Donor Sequence NNSN. Reduction of heterocycles and other functional groups. Chemical Education.

3. **Collaboration with *Professor Steven S. Silva, Polymer Chemistry, Chemical Education, and Industrial Chemistry, Lehman College, City University of New York (CUNY), Bronx, NY 10468*.** Our joint collaboration research proposals focus on the synthesis, characterization and application of various structurally diverse polymers. Concepts of measurements of elasticity, tensile strength, viscosity and moreover, instrumental analysis. Although specific projects, include an organic chemistry perspective, physical, inorganic, biochemistry analytical chemistry and instrumental methods of analysis. Such concepts serve as a core in effort of the synthesis of unique polymers, bio-polymers artificial bio-molecules (synthetic skin) (*e.g*. oligopolymers, carbamatoids, peptoids, oxy-peptoids, etc.) The following artificial biological molecules are unique in nature via a "linker" or bridge employed. Pursuing industrial, bio-organic, green chemistry, inorganic perspectives, the following projects are underway in our laboratories: development and applications of artificial skins for severe burn victims (void of painful skin grafts). Conductive polymers of electricity containing metals, unique plastic development, metallo-heterocyclic polymers. Polymer chemistry, Industrial chemistry and Chemical Education (Collegiate and high school, middle school and grade-school levels. Polymer chemistry, Industrial chemistry and Chemical Education (collegiate, high school, middle school, and grade school levels). Chemical demonstrations in the classroom.

4. Collaboration with ***Professor Cesar Zambrano, Inorganic, Organometallic, Coordination Bio-inorganic and Forensic Chemistry, University of San Francisco de Quito*.** Our research projects entail the studies in heterocyclic chemistry (Quinoxalines other allied compounds and metal complexes there-of), organometallic chemistry, supramolecular chemistry, X-ray crystallography, variable temperature NMR studies and chemical education. Specifically, the encapsulation of metals within supramolecular compounds, inorganic/organic polymers for electrical applications, bio-medical polymers (artificial skin and dressing for wounds), metal heterocyclic complexes, air-sensitive reactions and techniques and coordination chemistry.

UNIVERSITY AND COLLEGE LEVEL COMMITTEESS & DUTIES (SELECT)

University-Level Committees and Duties (WKU, UMB, and Lehman College). Also, <u>see above.</u>

- Faculty Search Committees for Inorganic Chemist, Organic Chemist, Analytical Chemist, Materials Chemist and Department Chair
- Pre-Med Committee
- Pre-Pharmacy Committee
- Pre-Vet Committee
- Pre-Optometry Committee
- Graduate Committee
- Chemistry Club Advisor-Numerous Awards received from ACS
- NMR Committee
- Instrumentation Committee
- New Green Science Building Renovations Committee
- Chemistry Laboratory Renovation Committee
- Organic Chemistry Division
- Chemical Hygiene Safety Committee (Chairman)
- Dean of Library Search Committee (appointment by Provost)

Graduate Thesis Committees (WKU):

- Mr. Matthew Honaker, MS (Spring 2004)
- Ms. Julia Raymer, MS (Spring 2004)
- Ms. Alicia McDaniel, MS (Spring 2005)
- Ms. Marti-Jo Watson (Summer 2005)

UNDERGRADUATE STUDENTS AND CO-RESEARCHERS

<u>At Western Kentucky University:</u>

- Daniel L. Fox (M.D. from UNC Chapel Hill, Duke)
- Shaun Curtis
- Jarrod Eubank (Ph.D. in Chemistry from University of South Florida)
- Kyle Autry
- Brooke Bennis (M.D; Indiana University School of Medicine)
- Ashlee Robinson
- Nathan Whitely
- J. T. Ruxer (D.O.; University of Pikeville)
- Sam Bradley (M.D.; University of Pikeville)
- James (Brandon) Frank
- Benjamin Sandefer (M.D.; Mayo Clinic)
- James (Bo) Hargett (M.D.; University of Louisville; Anesthesiology)
- Ben C. Bryson
- John Oliver (D.M.D.; University of Louisville)
- Kasey Alford
- Jesse Simpson
- Kevin Kolb

- Davis Garabato
- Dale Fisher
- Seth Larkin
- Andrew McKinney
- Robert Smith (Ph.D. in Chemistry from University of Mississippi)
- Ashley Stoker
- John Frey (D.M.D.; University of Kentucky)
- Kevin Jackson
- Jennifer Carter
- Adam Nischwitz (D.M.D; University of Louisville)
- John Pendelton
- Seth Parmely
- Aaron Smith
- Joel Veitchegger
- Daniel Poppy (M.B.A.; Western KY University)
- William Meredith

University of Massachusetts-Boston:

- Jason Hovland (UMASS & CUNY; M.S. from CUNY in Toxicology)
- Andrew Potts
- William (Bill) Cho
- Rian Laub
- David Saquet
- Marilú Pérez
- Victoria-Francis Lovings
- A.J. Kurbaj
- Corvina Estevez
- Anastasiya Sobolyeva
- Davin Watson
- Steven Markowitz
- Miguel Roca

Lehman College-The City University of New York:

- Jason M. Hovland
- Wilfried Hatton, Ph.D.
- Mario Simirgiotis, Ph.D.
- Jordon Kass (Ph.D. from Purdue)
- Dmitry Elya Dreyzin
- Harris Kaplan
- Anthony Clark
- Amal Hammand
- Daniel Clark (D.V.M.; University of Austin)

- Jason Pomerantz (visiting scientist/adjunct instructor)
- James Mariani
- Victor Magan
- Ramon Palmer
- Linda Ehigiegba
- Michael Hintze
- Andrew Caronia
- David Gonzalez
- Osman Lizardo
- Christa Kharouba (visiting scientist)
- Mahood Ghlauman (Joint research student with CUNY Brooklyn College)

Pueblo Community College:

- Kevin Mills
- Angela Spino
- Justin Shaffer
- Jason Arthurs
- Tanya McNair
- Monica Ortiz
- Jenna Alfonso
- Christopher M. Wilson
- Sonny Shawn Montoya
- Ryan Savory
- Ryan Kirsch
- Angela Dipaolo
- Maximillo Santiago

Colorado State University Pueblo:

- David Clair (joint mentoring b/w PCC-CSU-P)

Graduate Students, Degrees Conferred and Thesis Advisor for:

• Matthew Honaker, Masters of Science in Chemistry, Spring 2004. Ph.D. from the University of Washington, in Medicinal Chemistry, Seattle, WA.
Thesis Title: "Cesium Effect: A Mild and Efficient Synthesis of Secondary and Tertiary Phosphines" May 2005.

• Alicia McDaniel, Masters of Science in Chemistry, Western Kentucky University, July 2006, currently Chief Chemical Supplies Technician and Adjunct Professor-Western Kentucky University.
Thesis Title: "Synthesis and Characterization of Bis-Diphosphine-Transition Metal Complexes: Characterization via Multinuclear NMR and Molecular Modeling." May 2005.

Service on Graduate Thesis Committees at WKU for:

- Mr. Matthew Honaker, MS (Spring 2004)
- Ms. Julia Raymer, MS (Spring 2004)
- Ms. Alicia McDaniel, MS (Spring 2005)
- Ms. Marti-Jo Watson (Summer 2005)
-

UNIVERSITY AND COLLEGE LEVEL COMMITTEESS & DUTIES (Partial List)

University-Level Committees and Duties (WKU, UMB, and Lehman College):

- Faculty Search Committees for Inorganic Chemist, Organic Chemist, Analytical Chemist, Materials Chemist and Department Chair
- Pre-Med Committee
- Pre-Pharmacy Committee
- Pre-Vet Committee
- Pre-Optometry Committee
- Graduate Committee
- Chemistry Club Advisor-Numerous Awards received from ACS
- NMR Committee
- Instrumentation Committee
- New Green Science Building Renovations

Community College Committees and Duties (Pueblo Community College):

- Faculty Mentoring Committee
- Citizens Advisory Committee (CAC) (Pueblo Chemical Depot)
- Chemical Demilitarization Citizens' Advisory Commission (Pueblo Chemical Depot)
- STEM Initiatives Committee Co-Chair
- State Wide Deans Council (Colorado)
- Colorado State University Pueblo PROPEL STEM Steering Committee (DOE Grant)
- Bio-Utilization Work Group (BUG) (Pueblo Chemical Depot)

TEACHING INTERESTS

INTERESTS INCLUDE BUT NOT LIMITED TO: ORGANIC CHEMISTRY (ALL LEVELS), HETEROCYCLIC CHEMISTRY, GENERAL CHEMISTRY,

SCIENCE/TECHNOLOGICAL LITERACY. COURSES TAUGHT: ORGANIC CHEMISTRY I-II, ORGANIC CHEMISTRY LABORATORY I-II (MICRO-SCALE AND SEMI-MICRO/MACRO-SCALE) CHEMICAL SYNTHESIS LABORATORY, ADVANCED ORGANIC CHEMISTRY, GENERAL CHEMISTRY I-II, GENERAL CHEMISTRY LABORATORY I-II, CHEMICAL LITERATURE SEMINAR, CHEMISTRY CAPSTONE SEMINAR, INSTRUMENTAL METHODS, BIOCHEMISTRY I-II, SCIENTIFIC AND TECHNOLOGICAL LITERACY, NUTRITION, PHYSICAL SCIENCE, AND CHEMICAL EDUCATION, ETC.

CERTIFICATES & LICENSURES

Controlled Substance/Drug Enforcement License (for the handling and safe storage of drugs and other controlled substance in the teaching Criminalistics Lab/Forensic Chemistry Lab). ID #: BL0908965, issued by the Department of Justice (District of Columbia). Year issued: 2008.

SCIENTIFIC SKILLS

Computer based Skills: Word and Word Perfect, Excel, Power Point, Spread sheets (Excel and Quattro Pro), Chemistry drawing software packages, Spartan Molecular Modeling.

Software Applications: Microsoft Office, Microsoft Office XP, Microsoft Office 2003, Microsoft Office 2007, Microsoft Office 2010, MS Word, MS Excel, MS Outlook, MS Publisher, MS PowerPoint, EndNote, Internet Explorer, Mozilla Firefox, Google Chrome, Adobe Photoshop, Adobe Reader, Acrobat Professional, Foxit Reader.

Other: ChemBioDraw Ultra, ChemBio3D Ultra, ChemBioFinder Ultra, E-Notebook, SciFinder, MestReNova, MassLynx, Empower, Mercury, ORTEP, TopSpin, Tripos SYBYL, GOLD for protein-ligand docking, PyMOL, CAS, electronic data base searching, SciFinder, PUB MED, Etc.