A. M. RANJIKA PRIYADARSHI (DHARSHI) BOPEGEDERA

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EDUCATION:

- Ph.D., Physical Chemistry. May, 1989. University of Arizona, U.S.A. Thesis title: "Dye laser and diode laser spectroscopy of gas-phase free radicals".
- B.Sc. Second Class Honors (Upper Division) in Chemistry with Mathematics Minor. University of Peradeniya, Sri-Lanka. November, 1983.

TEACHING EXPERIENCE:

- August 1991 – Present: Member of the Faculty, The Evergreen State College
- January 2000 – July 2000: Sabbatical Teaching Assignment, University of Sri-Jayewardenepura, Sri Lanka
- August 1990 - December 1990: Part-time faculty, Department of Chemistry, Metropolitan State College, Colorado
- August 1984 - December 1985: Graduate teaching assistant, Department of Chemistry, University of Arizona.
- January 1984 - July 1984: Temporary Assistant lecturer, Department of Chemistry, University of Peradeniya, Sri-Lanka.

BOOKS PUBLISHED/BOOK CHAPTERS AUTHORED:

1. "Preventing mole concepts and stoichiometry from becoming "gatekeepers" in first year chemistry courses," Chapter 8 (pp 121-136), published in Enhancing Retention in Introductory Chemistry Courses. S. K. Hartwell and T. Gupta, Eds.; ACS Publications, 2019.
2. "Mole Concepts and Stoichiometry: A Chemistry Workbook", Linus Learning, 2017 (ISBN 13: 978-1-60797-744-5, ISBN 10: 1-60797-744-3).
3. "Atoms, Molecules, and Research – A learning community in upper division chemistry", Chapter 18 (pp 321-336), published in Student Active Science: Models of Innovation in College Science Teaching. A. P. McNeal and C. D'Avanzo, Eds.; Saunders College Publishing, 1997.

COURSES TAUGHT

General Chemistry with laboratory and introductory chemistry with laboratory for chemistry majors and non-majors, Thermodynamics, Quantum Mechanics, Chemical Kinetics, Atomic and Molecular Spectroscopy, High Resolution Spectroscopy Techniques, Inorganic Chemistry, Coordination Chemistry, Instrumentation Laboratory, Undergraduate Research in Chemistry

INTERDISCIPLINARY COURSES

- "Chaos, Calculus and Comparative World Views" (with a physicist & a mathematician)
- "Light" (with an artist)
- "Matter and Minerals" (with a geologist and a mathematician)
- "Earth Matters" (with a geologist)
- "Introduction to Natural Science" (with a biologist, physicist, mathematician, & geologist)
- "Matter and Motion" (with a physicist and a mathematician)
- "From the Fire: Art and Science of Ceramics" (with a ceramicist)
- "Introduction to Environmental Studies" (with a marine biologist and a political economist)
- "Chemistry Counts!" (with a mathematician)
- "Ecological Agriculture" (with a soil scientist)

RESEARCH INTERESTS:

- New approaches to teaching chemistry that engages undergraduate students at all levels
- Developing novel chemistry laboratory experiences for undergraduates that utilize project-based and problem-based approaches
- Teaching chemistry using chemical demonstrations to K-12 students
- Application of modern spectroscopic techniques to study electronic, vibrational, and rotational spectra of transient molecules in the gas phase for the purpose of structure elucidation. I have experience in using ion lasers, dye-lasers, diode lasers, and Fourier transform spectrometers and worked with high vacuum systems.

RESEARCH EXPERIENCE:

- August 1989 - July 1991: Postdoctoral research associate with Dr. Carleton Howard, Environmental Research Laboratories, National Oceanic and Atmospheric Administration (NOAA), Boulder, CO. Fourier transform spectroscopy and kinetic studies of gaseous radicals of environmental interest
- June 1989 - July 1989: Postdoctoral research associate with Professor Peter F. Bernath at The University of Arizona. High resolution spectroscopy of transient molecules
- January 1986 - May 1989: Graduate research assistant with Professor Peter F. Bernath, Department of Chemistry, The University of Arizona, Tucson, AZ. Dye laser, diode laser, and Fourier transform spectroscopy of transient molecules

AWARDS & HONORS:

- American Chemical Society's Committee for Environment and Sustainability (ACS-CES)Award for Incorporating Sustainability into Chemistry Education, 2024-25
- E. Ann Nalley Northwest Region Award for Volunteer Service to the American Chemical Society, 2023
- Association of Women in Science (AWIS), Seattle Chapter Award for Excellence in Education & Outreach, 2022
- Faculty Graduation Speaker, 2022 Commencement of The Evergreen State College

- Faculty Achievement Award – given by the President of The Evergreen State College, 2014
- Chemiluminary Award Finalist 2014 – Presented by the American Chemical Society for organizing the 2014 Career Event (10^{th} Annual Career Event) of the Puget Sound Section of the ACS
- Faculty Advisor to the "Evergreen Chemistry Club" from its inception in 2003 to 2019. Student Affiliate Chapter of the American Chemical Society that received the Outstanding Chapter Award (2008, 2018), Commendable Award (2006, 2007, 2009, 2011), Green Chemistry Award (2007, 2009), and Honorable Mention Award (2012, 2013, 2015)
- "Salute to Excellence" Award, presented by the American Chemical Society for volunteering to promote chemistry in the community (2004) and for serving as the National Chemistry Week Coordinator for the Puget Sound Section of the ACS for 10 years (2008)
- Burlington Northern Faculty Achievement Award - For excellence in developing and teaching a year long, senior level, new chemistry program ("Atoms, Molecules and Research"), awarded by The Evergreen State College (1993)
- Carl S. Marvel Research Fellowship - awarded annually by the Chemistry Department of The University of Arizona to a senior graduate student for outstanding performance in research (1989).
- Award for outstanding teaching assistant, The University of Arizona, Department of Chemistry (1985)
- Award for outstanding graduate student, The University of Arizona, Department of Chemistry (1985 & 1986)
- The University of Arizona, Department of Chemistry travel awards (1986 & 1988)
- Western Spectroscopy Association travel awards (1986, 1987, 1988 & 1989)

INVITED LECTURES:

- Tie-dye! - An engaging activity to introduce polymers and polymerization to beginning chemistry students, A. M. R. P. Bopegedera, Invited Keynote Speaker, Eurochemistry Conference, Paris, 2018
- "Quantitative Determination of Iron in Limonite using Atomic Absorption & Visible Spectroscopy Techniques", Industrial Technology Institute of Sri-Lanka, July 2012
- Keynote address on "Women Inspiring Women & Men: Yesterday, Today, & Tomorrow", Northwest Regional Meeting of the American Chemical Society, Women Chemists & Diversity Committees Luncheon, July 2009
- "Important Considerations in Preparing for Graduate Studies in the U.S.A." at the Department of Chemistry, University of Sri-Jayewardenepura, Sri-Lanka, 2002, 2005, 2009 and at the Department of Chemistry, University of Peradeniya, Sri-Lanka, 2002, 2005, 2009
- "Interdisciplinary Approach to Teaching Science", at the Department of Chemistry, University of Idaho, 2004
- Keynote address on "Teaching in Sri Lanka – a Different Experience", at the Washington College Chemistry Teachers Association Conference, October 2001

- Lecture series on "Laser Magnetic Resonance Spectroscopy", University of Colombo, Sri-Lanka, July 1994
- Seminar on "Laser Magnetic Resonance Spectroscopy", University of Peradeniya, Sri-Lanka, July 1994

JOURNAL PUBLICATIONS:

1. Bopegedera, A. M. R. P. Evaluating the Heats of Combustion of Coals Using Bomb Calorimetry in the General Chemistry Laboratory, *J. Chem. Educ.* **2023**, 100, 298–305
2. Bopegedera, A. M. R. P. The Analysis of Dolomitic Marble: A Multi-Faceted Problem for General Chemistry Students. Submitted to *J. Chem. Educ.* **2022**, *99* (2), 964-974
3. Bopegedera, A. M. R. P. Student-Driven, Curriculum-Embedded Undergraduate Research Experiences (SD-CUREs) in the Senior Chemistry Curriculum and its Impact on Students. *J. Chem. Educ.* **2021**, *98* (8), 2549-2558
4. **Cover Page Article -** Bopegedera, A. M. R. P., and Christopher L. Coughenour. An Interdisciplinary, Project-Based Inquiry into the Chemistry and Geology of Alkaline Surface Lake Waters in the General Chemistry Laboratory. *J. Chem. Educ.* **2021**, *98* (4), 1352–1360
5. Bopegedera, A. M. R. P.; Chemistry in the Public Library: A Long-Standing, Valuable Community Partnership. *J. Chem. Educ.* **2021,** *98* (4), 1256-1265
6. Using Familiar and New Assessment Tools in Physical Chemistry Courses During COVID-19, A. M. R. P. Bopegedera, *J. Chem. Educ.*, **2020**, *97* (9), 3260–3264
7. A Second Look at the Kinetics of the Iron–Oxygen Reaction: Determination of the Total Order Using a Greener Approach, A. M. R. P. Bopegedera, *J. Chem. Educ.*, **2018**, *95* (10), 1897–1899
8. Tie-dye! - An engaging activity to introduce polymers and polymerization to beginning chemistry students, A. M. R. P. Bopegedera, *J. Chem. Educ.*, **2017**, *94* (11), 1725–1732
9. **Cover Page Article** - "Greening" a Familiar General Chemistry Experiment: Coffee Cup Calorimetry to Determine the Enthalpy of Neutralization of an Acid–Base Reaction and the Specific Heat Capacity of Metals, A. M. R. P. Bopegedera, K. Nishanthi R. Perera. *J. Chem. Educ.*, **2017**, *94* (4), 494–499
10. Analysis of copper-bearing rocks and minerals for their metal content using visible spectroscopy: A first year chemistry laboratory exploration, A. M. R. P. Bopegedera, *J. Chem. Educ.*, **2016**, *93* (9), 1616–1622
11. Quantitative determination of iron in limonite using spectroscopic methods with senior and general chemistry students: Geology-inspired chemistry lab explorations, A.M.R.P. Bopegedera, Christopher L. Coughenour, and Andrew J. Oswalt. *J. Chem. Educ.*, **2016**, *93* (11), 1916–1922
12. A Laboratory Experiment Investigating the Impact of Ocean Acidification on Calcareous Organisms, Alokya P. Perera and A.M.R.P. Bopegedera, J. Chem. Educ. 2014, *91 (4),* 1951-1953
13. Analysis of Efflorescence Contents to Diagnose Concrete Degradation, Bonnie McLeod, A. M. R. P. Bopegedera,

www.coplac.org/publications/metamorphosis/metamorphosis.php?a=Fall2012&p=1&c=ns&s=title&o=ASC

14. “Putting the Laboratory at the Center of Learning Chemistry” A. M. R. P. Bopegedera, J. Chem. Educ., **2011,** *88*, 443.
15. “A Guided-Inquiry Lab for the Analysis of the Balmer Series of the Hydrogen Atomic Spectrum” A. M. R. P. Bopegedera, J. Chem. Educ., **2011,** *88*, 77.
16. “A Local Section’s Attempt to Recruit the Many Faces of Chemistry” A.M.R.P. Bopegedera, J. Chem. Educ., **2007,** *84*, 1589
17. An Inquiry-Based Chemistry Laboratory Promoting Student Discovery of Gas Laws, A.M.R.P. Bopegedera, J. Chem. Educ., **2006,** *84*, 465
18. STEMing the Tide: Using Career Week activities to Recruit Future Chemists, A.M.R.P. Bopegedera, J. Chem. Educ., **2005,** *82*, 1505
19. “Light” - An Interdisciplinary Teaching/Learning Experience, A.M.R.P. Bopegedera, J. Chem. Educ., **2005**, *82*, 55.
20. “Atoms, Molecules and Research - A Learning Community in Upper Division Chemistry,” A.M. R. P. Bopegedera, Student Active Science: Models of Innovation in College Science Teaching, Ann P. McNeal & Charlene D’Avanzo (editors), Saunders College Publishing, Philadelphia, 1997.
21. "Kinetics of the $HO_2 + NO_3$ reaction", A. Mellouki, R. K. Thalukdar, A.M.R.P. Bopegedera and C.J. Howard, Int. J. of Chem. Kinet. *25*, 25 (1993).
22. "Infrared measurements of BrO ($X^2\Pi_{3/2}$)", John J. Orlando, James B. Burkholder, A.M.R.P. Bopegedera and Carleton J. Howard, J. molec. spectrosc., *145*, 278, (1991).
23. "Gas phase inorganic chemistry: Laser spectroscopy of calcium and strontium monoborohydrides", F.S. Pianalto, A.M.R.P. Bopegedera, W.T.M.L. Fernando, R. Hailey, L.C. O'Brien, C.R. Brazier, P.C. Keller and P.F. Bernath, J. Am. Chem. Soc., *112*, 7900, (1990).
24. "Diode laser spectroscopy of BiH and BiD", A.M.R.P. Bopegedera, C.R. Brazier, P.F. Bernath, Chem. Phys. Lett., *162* (4,5), 301, (1989).
25. "Gas phase inorganic chemistry: Laser spectroscopy of calcium and strontium monopyrrolate molecules", A.M.R.P. Bopegedera, W.T.M.L. Fernando, P.F. Bernath, J. Phys. Chem., 94, 4476, (1990).
26. "Gas phase inorganic chemistry: Laser spectroscopy of calcium monoformamidate and strontium monoformamidate", A.M.R.P. Bopegedera, W.T.M.L. Fernando, P.F. Bernath, to J. Phys. Chem., 94, 3547, (1990).
27. "Rotational analysis of the A $^2\Pi$ - X $^2\Sigma^+$ transition of calcium monoacetylide, CaCCH", A.M.R.P. Bopegedera, C.R. Brazier, P.F. Bernath, J. Molec. Spectrosc., 129, 268, (1988)."Diode laser spectroscopy of alkali halides: The sodium fluoride molecule", M.C. Douay, A.M.R.P. Bopegedera, C.R. Brazier, P.F. Bernath, Chem. Phys. Lett., 148, 1, (1988).
28. "Laser spectroscopy of calcium and strontium acetylides", A.M.R.P. Bopegedera, C.R. Brazier, P.F. Bernath, Chem. Phys. Lett., 136, 97, (1987).
29. "Laser spectroscopy of strontium and calcium monoalklamides", A.M.R.P. Bopegedera, C.R. Brazier, P.F. Bernath, J. Phys. Chem., 91, 2779, (1987).
30. "Laser spectroscopy of calcium and strontium monocyanates", L.C. Ellingboe, A.M.R.P. Bopegedera, C.R. Brazier, P.F. Bernath, Chem. Phys. Lett., 126, 285, (1986).

PRESENTATIONS:

1. Incorporating the Science of Global Climate Change into the First-Year Chemistry Curriculum, **A. M. R. P. Bopegedera**, Washington College Chemistry Teachers Association Conference, October 2022. Oral presentation
2. Teaching students to teach themselves - "Nuclear Chemistry Self-Study" in the first-year chemistry curriculum. **A. M. R. P. Bopegedera**, Washington College Chemistry Teachers Association Conference, October 2019. Oral presentation
3. Evaluating the economic viability of coal samples using bomb calorimetry: A problem based, interdisciplinary laboratory exercise for general chemistry students. A. M. Ranjika P. Bopegedera, ACS Spring National Meeting, 2019.
4. Preventing mole concepts and stoichiometry from becoming "gatekeepers" in the first year chemistry courses, **A. M. R. P. Bopegedera**, Biennial Conference in Chemical Education, July 2018. Oral presentation
5. Tie-dye! - An engaging activity to introduce polymers and polymerization to beginning chemistry students, **A. M. R. P. Bopegedera**, Invited Keynote Speaker, Eurochemistry Conference, Paris, 2018
6. Remediation of Hexavalent Chromium in Industrial Wastewater via Photocatalysis using Advanced Nanostructures. **Koledin, Tamara**; Nelson, Jenna; A. M. R. P. Bopegedera, 2018 Undergraduate Research Symposium of the Puget Sound Section of the American Chemical Society, Poster.
7. A Greener Approach to Investigate the Reaction Kinetics of the Iron-Oxygen Reaction. **Tranum, Jacqueline G**.; A. M. R. P. Bopegedera, 2018 Undergraduate Research Symposium of the Puget Sound Section of the American Chemical Society, Poster.
8. Using GC-MS to Monitor Mycoremediation of Diesel Hydrocarbons With Local Fungi Species. **Froehlich, Joanna I.; Davis, Forest** G.; Przybylowicz, Paul, A. M. R. P. Bopegedera, 2018 Undergraduate Research Symposium of the Puget Sound Section of the American Chemical Society, Poster.
9. Monitoring the Effects of Traffic Pollution on Stream Water: Trace Metal Analysis Using Inductively Coupled Plasma-Mass Spectrometry (ICP-MS). **Christensen, Tokala W.; Lopez, Brayan**; A. M. R. P. Bopegedera, 2018 Undergraduate Research Symposium of the Puget Sound Section of the American Chemical Society, Poster.
10. Elemental analysis of an analog for Mt. St. Helens tephra using inductively coupled plasma-mass spectroscopy (ICP-MS). **Beck, John**; Dr. Abir Biswas, A. M. R. P. Bopegedera, 2018 Undergraduate Research Symposium of the Puget Sound Section of the American Chemical Society, Poster.
11. Caffeine Contamination in Local Creeks **Jordan Beard, Connor McDaniel**, A. M. R. P. Bopegedera, 2018 Undergraduate Research Symposium of the Puget Sound Section of the American Chemical Society, Poster.
12. Safe Vaping? **Sophia Balderrama, Connor Jaccard**, A. M. R. P. Bopegedera, 2018 Undergraduate Research Symposium of the Puget Sound Section of the American Chemical Society, Poster.
13. Teaching mole concepts and stoichiometry using the active learning approach, **A. M. R. P. Bopegedera**, Oral Presentation. 2018 American Chemical Society, Spring National Meeting, Oral Presentation.

14. Tie-dye as an Effective & Engaging Tool to Introduce Polymer Concepts to Beginning Chemistry Students. **A. M. R. P. Bopegedera**, Washington College Chemistry Teachers Association conference, October 2018. Oral presentation.
15. Teaching Mole Concepts and Stoichiometry with Your Mouth Shut!, , Oral Presentation. Washington College Chemistry Teachers Association Conference, October 2017
16. Evaluating the economic viability of a "copper mine" in the first-year chemistry laboratory using visible spectroscopy, **A. M. R. P. Bopegedera**, Oral Presentation. Spring National Meeting of the American Chemical Society, 2017
17. The Challenges and Successes of Planning and Executing an Interdisciplinary Course: "From the Fire! The Art and Science of Ceramics" **A. M. R. P. Bopegedera**, Oral Presentation. Washington College Chemistry Teachers Association Conference, 2016
18. From the Fire: The Art and Science of Ceramics, **A. M. R. P. Bopegedera**, Oral presentation. Biennial Conference in Chemical Education, 2016.
19. Chemistry, the Central Science, in the Service of Interdisciplinary Education, **A. M. R. P. Bopegedera**, Invited Oral Presentation, International Caparica Christmas Congress on Translational Chemistry, 2015
20. "Kinetics of the Carbon Dioxide Hydration Reaction: Qualitative and Quantitative Laboratory Experiments for First-Year and Physical Chemistry Students", **A. M. R. P. Bopegedera**, Frederick D. Tabbutt, Oral Presentation, ACS Spring National Meeting, 2015 and Washington College Chemistry Teachers Association Conference, 2014
21. "Teaching the Mole Concept with your Mouth Shut!", **A. M. R. P. Bopegedera**, Oral Presentation**,** Biennial Conference in Chemistry Education, 2014
22. The Greening of a Familiar General Chemistry Lab Experiment – "Coffee Cup Calorimetry", **A. M. R. P. Bopegedera,** and K. Nishanthi R. Perera, Oral Presentation, Washington College Chemistry Teachers Association Conference, 2013
23. "Using Primary Literature as a Teaching Tool", **A.M.R.P. Bopegedera,** Washington College Chemistry Teachers Association Conference, 2012
24. "Preparing the Chemistry Senior for the Chemists' World – Library Research, Method Development, Sample Preparation, Instrumentation, Data Analysis, and Presentation", **A. M. R. P. Bopegedera**, Oral Presentation**,** Biennial Conference in Chemistry Education, 2012.
25. "Investigating Geologically Important Samples in the General Chemistry Laboratory: Analysis of alkaline lake waters for the quantitative determination of alkalinity, dissolved solids, calcium and magnesium ion contents", **A. M. R. P. Bopegedera** and Christopher Coughenour, Oral Presentation**,** Biennial Conference in Chemistry Education, 2012.
26. "Elemental Analysis of Efflorescence Contents to Diagnose Concrete Degradation, **Bonnie McLeod** and A.M.R. P. Bopegedera, Oral Presentation**,** Undergraduate Research Symposium of the Puget Sound Section of the American Chemical Society, 2012.
27. "Teaching analytical skills and techniques at the general chemistry level within an interdisciplinary framework: "The quantitative determination of anion and cation concentrations in dolomitic marble", **A.M.R.P. Bopegedera,** Oral Presentation**,** Society of Western Analytical Professors Symposium, 2012
28. "Does taking a General Chemistry Course Significantly Increase Students' Cognitive Skills and Problem Solving Strategies? - A Case Study", **A.M.R.P. Bopegedera,** Oral Presentation**,** Washington College Chemistry Teachers Association Conference, 2011

29. "Earth Matters: Successes and challenges in teaching an integrated chemistry-geology course" **Christopher Coughenour and A.M.R.P. Bopegedera,** Oral Presentation**,** Washington College Chemistry Teachers Association Conference, 2010

30. Competence of First Year College Students in Some Basic Intellectual Skills and Strategies **Mailoo Selvaratnam**, (Mafikeng Campus, North West University, South Africa) and A. M. R. P. Bopegedera, Oral Presentation**,** Biennial Conference in Chemistry Education, 2010.

31. "A General Chemistry Laboratory Exploring the impact of increased acid levels in ocean waters on coral" by K. Alokya P. Perera and **A. M. R. P. Bopegedera,** Oral Presentation**,** Biennial Conference in Chemistry Education, 2010.

32. "Putting the Lab at the Center of Teaching and Using a Lab Practical Exam as a Tool to Assess Student Learning" **A.M.R.P. Bopegedera,** Oral Presentation**,** Washington College Chemistry Teachers Association Conference, 2009

33. "Making Interdisciplinary Connections – Where Chemistry Makes a Difference", **A.M.R.P. Bopegedera,** Oral Presentation**,** Northwest Regional Meeting of the American Chemical Society, 2009.

34. "Making Interdisciplinary Connections – Where Chemistry Makes a Difference", **A.M.R.P. Bopegedera,** Oral Presentation**,** Washington College Chemistry Teachers Association Conference, October 2008.

35. "Elemental Analysis of Chalk by ICP-MS", **Justin Grant, Katharine Leicht**, Clyde Barlow, and A.M.R.P. Bopegedera, ACS (Puget Sound Section) Undergraduate Research Symposium, Oral presentation, 2008.

36. "A Local Section's Attempt to Recruit the Many Faces of Chemistry", A.M.R.P. Bopegedera, Plenary Lecture, Washington College Chemistry Teachers Association Conference, 2007.

37. "Starting a Student Centered Chemistry Club at Your Institution", **A.M.R.P. Bopegedera,** Oral Presentation**,** Washington College Chemistry Teachers Association Conference, 2006.

38. "Matter and Minerals" - a Thematic Approach to Teaching General Chemistry to a Broader Audience, **A. M. R. P. Bopegedera**, Oral Presentation**,** Biennial Conference in Chemistry Education, 2006.

39. "Matter and Minerals" - a Thematic Approach to Teaching General Chemistry to a Broader Audience, **A.M.R.P. Bopegedera,** Oral Presentation**,** Biennial Conference in Chemistry Education, 2006 and Washington College Chemistry Teachers Association Conference, 2006.

40. Revitalizing the Face of Chemistry through the American Chemical Society", **A.M.R.P. Bopegedera, Carole Berg**, Oral Presentation**,** Washington College Chemistry Teachers Association Conference, 2005.

41. "Chemists in the Library" – A Valued Partnership between College Faculty, Students, the Local Library, and the Community, **A. M. R. P. Bopegedera**, Oral Presentation**,** Washington College Chemistry Teachers Association Conference, 2005.

42. Workshop on "The Chemistry of Tie Dyeing", **A. M. R. P. Bopegedera**, Oral Presentation**,** Biennial Conference in Chemistry Education, 2004.

43. Panelist on the panel discussion on "Integrating Undergraduate Research into the Chemistry Curriculum", Oral Presentation**,** Washington College Chemistry Teachers Association Conference, 2003.
44. Hosting a Career Week for Chemistry Majors, **A. M. R. P. Bopegedera**, Oral Presentation**,** Washington College Chemistry Teachers Association Conference, 2003.
45. "Vibration-Rotation Spectrum of HBr: The Analysis of the Fundamental Band", **A. M. R. P. Bopegedera**, Oral Presentation**,** Washington College Chemistry Teachers Association Conference, 2002.
46. "Learning Chemistry by Teaching: A successful Experiment in Chemistry Education", **A. M. R. P. Bopegedera**, Oral presentation. Washington College Chemistry Teachers Association Conference, 2002.
47. "A Concept Based Chemistry Laboratory on Exploring Gas Laws", **A. M. R. P. Bopegedera**, Oral Presentation**,** Biennial Conference in Chemistry Education, 1998
48. Heather Bailey, A. M .R. P Bopegedera, Sharon Anthony, "Investigation of the Water Quality in Local Wells of Thurston and Mason Counties", Oral presentation, ACS (Puget Sound Section) Undergraduate Research Symposium, 2002.
49. Archer, Arletta, Munechika, Keiko, A. M .R. P Bopegedera, "The Enigmatic Characteristics of Scotch Broom (Cysitus Scoparius) that Contributes to Dominance in Plant Communities", Oral presentation, ACS (Puget Sound Section) Undergraduate Research Symposium, 2002.
50. Teaching Chemistry in Sri-Lanka – A Different Experience", **A. M. R. P. Bopegedera**, Invited Key Note presentation. Washington College Chemistry Teachers Association Conference, 2001.
51. "Exploring the Properties of Waves", **A. M. R. P. Bopegedera**, Oral presentation. Washington College Chemistry Teachers Association Conference, 1999.
52. "Light - An Interdisciplinary Approach to Teaching Science", **A. M. R. P. Bopegedera**, Oral presentation. Washington College Chemistry Teachers Association Conference, 1999.
53. "A Concept Based Chemistry Laboratory on Discovering Gas Laws", **A. M. R. P. Bopegedera,** Oral presentation. Washington College Chemistry Teachers Association Conference, 1998.
54. "A Workshop on Balancing Chemical Equations Using Toothpicks and Modeling Clay Models", **A. M. R. P. Bopegedera**, Oral presentation. Washington College Chemistry Teachers Association Conference, 1997.
55. "A New Approach to Upper Division Science at The Evergreen State College: Atoms, Molecules and Research", **A.M.R.P. Bopegedera**, Poster. Council for Undergraduate Research Conference, Hope College, Michigan, 1992.
56. "Infrared line positions, line intensities and UV absorption cross sections of the BrO radical", J.J. Orlando, J.B. Burkholder, **A.M.R.P. Bopegedera**, and C.J. Howard, Poster. Thirty Seventh Annual Conference of the Western Spectroscopy Association, Asilomar, California, 1990.
57. "Diode laser spectroscopy of bismuth hydride and bismuth deuteride", **A.M.R.P. Bopegedera**, C.R. Brazier and P.F. Bernath, Oral Presentation, Forty Fourth Symposium in Molecular Spectroscopy, Columbus, Ohio, 1989.

58. "Diode laser spectroscopy of bismuth hydride and bismuth deuteride", **A.M.R.P. Bopegedera**, C.R. Brazier and P.F. Bernath, Poster.Thirty Sixth Annual Conference of the Western Spectroscopy Association, 1989.

59. "Laser spectroscopy of alkaline earth monocarboxylates and monoformamidates", **A.M.R.P. Bopegedera**, W.T.M.L. Fernando, S. Kinsey-Nielsen, C.R. Brazier, L.C. O'Brien, P.F. Bernath, Oral Presentation, Forty Third Symposium in Molecular Spectroscopy, June 1988.

60. "The rotational analysis of the B2E - Xfirst~^{2}E-X~$^2A_1$ transition of calcium Borohydride ($CaBH_4$)", **A.M.R.P. Bopegedera**, F.S. Pianalto, P.C. Keller, P.F. Bernath, Oral Presentation, Forty Third Symposium in Molecular Spectroscopy, 1988. .

61. "High resolution laser spectroscopy of $CaCH_3$ and CaCCH", **C.R. Brazier**, A.M.R.P. Bopegedera, P.F. Bernath, Poster.Tenth Colloquium on High Resolution Molecular Spectroscopy, Dijon, France, 1987.

62. "High resolution laser spectroscopy of $CaCH_3$ and CaCCH", **C.R. Brazier**, A.M.R.P. Bopegedera, P.F. Bernath, Poster. Eighteenth International Symposium in Free Radicals, Oxford, England, 1987.

63. "High resolution laser spectroscopy of CaCCH", **A.M.R.P. Bopegedera**, C.R. Brazier, P.F. Bernath, Oral Presentation, Forty Second Symposium on Molecular Spectroscopy, 1987.

64. "Observation of calcium and strontium monoalkylamides and a rotational analysis of $SrNH_2$", **C.R. Brazier**, A.M.R.P. Bopegedera, P.F. Bernath, Oral Presentation, Forty First Symposium on Molecular Spectroscopy, 1986.

65. "Organometallic free radicals: Observation of open-faced sandwich complexes of alkaline earth metals", L.C. Ellingboe, C.R. Brazier, A.M.R.P. Bopegedera, **P.F. Bernath**, Oral Presentation, Forty First Symposium on Molecular Spectroscopy, 1986.

66. "High resolution laser spectroscopy of CaCCH and $CaCH_3$, **A.M.R.P. Bopegedera**, C.R. Brazier, P.F. Bernath, Poster. Thirty Fifth Annual Conference of the Western Spectroscopy Association, 1988.

67. "Laser spectroscopy of calcium and strontium monoamides and monoacetylides", **A.M.R.P. Bopegedera**, C.R. Brazier, P.F. Bernath, Poster. Thirty Fourth Annual Conference of the Western Spectroscopy Association, 1987.

68. "Laser spectroscopy of calcium and strontium monocyanates and calcium amides", **A.M.R.P. Bopegedera**, L.C. Ellingboe, C.R. Brazier, P.F. Bernath, Poster. Thirty Third Annual Conference of the Western Spectroscopy Association, 1986.

WORKSHOPS:

1. Participant, selected for the Center for Workshops in the Chemical Sciences on "Computational Chemistry", sponsored by the National Science Foundation at the Benedictine College, Atchison, KS, May 2016
2. Participant, selected for the Center for Workshops in the Chemical Sciences on "Chemistry in Art", sponsored by the National Science Foundation at Whitman College, Walla Walla, WA, June, 2010

3. Participant in the Leadership Training Workshop of the American Chemical Society, 2005
4. Participant in the Public Relations Chair Training Workshop of the American Chemical Society, 2003
5. Invited presenter of a workshop on “Gender and Science” at the Everett Community College, Everett, Washington, September 1995
6. Organized and co-conducted a faculty development workshop (with three other faculty) titled "Chaos, Calculus and Comparative World Views", The Washington Center for Improving the Quality of Undergraduate Education at the Evergreen State College, July 1995
7. Organized and co-conducted a workshop on "Diversity in the Sciences" (with two other faculty members), Cultural Pluralism Conference by The Washington Center for Improving the Quality of Undergraduate Education, Seattle, Washington, January 1995
8. Organized and conducted a one day workshop on "Gender and Science" for all science faculty, staff, and students at The Evergreen State College, Fall 1992

GRANT SUPPORT:

1. American Chemical Society, Division of Chemical Education (DivCHED) Travel Award to participate and present a paper as a part of the CHED programming at the Spring ACS National Meeting in Orlando, Florida, 2019.
2. Sponsored Research Grant from the Evergreen State College, Summer 2019
3. Faculty Foundation Grant from The Evergreen State College Foundation, Summer 2019
4. American Chemical Society, Division of Chemical Education (DivCHED) Travel Award to participate and present a paper as a part of the CHED programming at the 249th ACS National Meeting in Denver, Colorado, 2015.
5. Nano-Grant for funding the Career Event of the Puget Sound Section of the ACS (author of the grant), awarded by the American Chemical Society, 2010
6. Innovative Grant (author of grant) to Local Sections from the American Chemical Society, 2005 and 2007
7. Sponsored Research Seed Grant recipient from the Evergreen State College, Olympia, Washington, Summer 1992, 1995, 1997, 2003, 2010, and 2014
8. Murdock Foundation grant recipient, 1994
9. American Chemical Society, Petroleum Research Fund (Type G) recipient, 1992-1994

COMMITTEE WORK:

1. Member, Local Section Activities Committee, American Chemical Society, 2021 to date
2. Career Consultant, American Chemical Society, April 2019-date
3. Member, Public Relations Committee, Chemical Education Division of the American Chemical Society, 2019 to date
4. Lead organizer for the annual Undergraduate Research Symposium of the Puget Sound Section of the American Chemical Society, 2018
5. Member of the Executive Committee of the Puget Sound Section of the American Chemical Society, 2004 to date (Councilor, 2018-present; Alternate Councilor, 2007-2017; Past Chair, 2006; Chair, 2005; Chair Elect, 2004)
6. Member of the Hiring Priorities DTF at The Evergreen State College (2011-2014)

7. Chair of the Kutter Microbiology Grants Committee, The Evergreen State College, Olympia, WA 98505, 2014 to date
8. Symposium Chair for the Forty Fifth Annual Pauling Medal Award Symposium and Banquet held at the Evergreen State College on November 6th, 2010
9. Hiring Committee for hiring a visiting geologist at The Evergreen State College, 2009
10. Organizer for the Annual Career Event of the Puget Sound Section of the American Chemical Society, 2005-present
11. Member of the Organizing Committee for the Annual Science Carnival at The Evergreen State College, 2003-present
12. Organizer for the annual Undergraduate Research Symposium of the Puget Sound Section of the American Chemical Society, 2008, 2018
13. Member of the Hiring Committee for hiring the Student Organizations Advisor of The Evergreen State College, 2008
14. Member of Pauling Medal Selection Committee (multiple years)
15. Member of the Hiring Committee for hiring a geologist at The Evergreen State College, 2007, 2008
16. Member of the hiring committee for hiring the Vice President for College Advancement of The Evergreen State College, 2006
17. Chair of the hiring committee for hiring a computer scientist at The Evergreen State College, 2023
18. NSF Graduate Research Fellowships Panelist (chemistry), 2003-2005
19. Member of the distinguished panel of judges for the "Governor's Award for Pollution Prevention & Sustainable Practices" in the state of Washington, 2002.
20. Chair of the hiring committee for hiring a physical chemist at The Evergreen State College, 1994, 1999, and 2022
21. Member of the hiring committee for hiring an organic chemist at The Evergreen State College, 1997 and 1998

OTHER PROFESSIONAL CONTRIBUTIONS:

1. Textbook Reviewer for Wiley & Sons. (Reviewed "Physical Chemistry" by Robert J. Silbey, Robert A. Alberty, and Moungi G. Bawendi in preparation for its 5th current edition)
2. Textbook Reviewer for the Olympia Superintendent of Public Instructions (chemistry textbook review for 9-12 grades), 2009
3. Laboratory Manual Reviewer for McMillan Company (Chemistry Lab Database Project), 2009
4. Reviewer for the Journal of Chemical Education, 2006 to date

COMMUNITY SERVICE:

1. Member of the Board, Pope John Paul High School in Olympia, WA, 2016 to 2019. Founding member of the Steering Committee that established this school.
2. Member of the Seattle Archdiocesan School Board, 2005-2011
3. Founding Faculty Advisor to the "Evergreen Chemistry Club", (Student Affiliate Chapter of the American Chemical Society), 2003 to 2019. This chemistry club won the Commendable Award (2006, 2007, 2009, 2011), Outstanding Chapter Award (2008),

Honorable Mention Award (2015, 2018), and Green Chemistry Awards (2007, 2009, 2015).

4. Coordinator and Planner for the "Chemists in the Library" program at the Timberland Regional Library in Olympia (1998 to date).
5. Chemists Celebrate Earth Day Coordinator of the Puget Sound Section of the American Chemical Society, 1998-2014
6. National Chemistry Week Coordinator of the Puget Sound Section of the American Chemical Society, 1997-2014
7. Chemistry demonstrations/hands on labs at many local area schools to get students interested in science, 1998 to date
8. Evergreen State College mentoring program for minority students, 1991-1998

MEMBERSHIPS:

Member of the American Chemical Society - 1987 to date
Member of the American Chemical Society Chemical Education Division - 2012 to date

REFERENCES:

1. Dr. Peter F. Bernath, Professor & Eminent Scholar, Department of Chemistry & Biochemistry, Old Dominion University, 217 Oceanography & Physics Building, Norfolk, VA 23529 (pbernath@odu.edu)
2. Dr. John Enemark, Regents Professor Emeritus, Department of Chemistry & Biochemistry, The University of Arizona, Tucson, AZ 85721 (jenemark@u.arizona.edu)
3. Dr. Gregory Milligan, Saint Martin University, 5000 Abbey Way SE, Lacey, WA 98503-3200 (gmilligan@stmartin.edu)
4. Dr. Sheri Tonn, Professor Emeritus at Pacific Lutheran University, Department of Chemistry, Rieke Science Center, 12180 Park Avenue South, Tacoma, WA 98447 (tonnsj@plu.edu)