Ron C. Estler

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Education

Undergraduate: Drew University, Madison, New Jersey
Degree: B.A., Summa Cum Laude Honors in Chemistry, 1972
Awards & Honors: Sigma Phi (scholastic honor society), American Institute of Chemists Award for outstanding graduate in Chemistry
Graduate: The Johns Hopkins University, Baltimore, Maryland
Degree: M.A., Chemistry, 1974, Ph.D., Chemical Physics, 1976
Thesis Advisor: Professor John P. Doering
Thesis: Electron Impact Excitation of Molecular Nitrogen: High Resolution Studies of Electron Impact Optical Excitation Functions of the First Positive System
Awards & Honors: Phi Beta Kappa, Ernest M. Marks Award for excellence in the Instruction of Chemistry
Postdoctoral: Columbia University - Advisor: Professor Richard N. Zare, 1976-1977
Stanford University - Advisor: Professor Richard N. Zare, 1977-1978

Academic Positions

University of Southern California, Assistant Professor Chemistry, 1978-1982
Fort Lewis College, Assistant Professor of Chemistry, 1982-1984
Associate Professor of Chemistry, 1984-1991
Professor of Chemistry, 1991-present
Chair, Department of Chemistry, 1986-1989, 2004-2006
Awards/Recognitions:
Fort Lewis College, Featured Scholar Award, Fall 2000
Cynthia Stengel Award for Outstanding Support of the Program for Academic Advancement (Federally Funded TRIO program), FLC, December 2004
Bob Lundquist Award for Faculty/Staff Service to Fort Lewis College Alumni, (First recipient of this award), October 2007
CASE/Carnegie Professor of the Year, Colorado, 2009
Roger Peters Distinguished Professor Award (FLC) 2012

Sabbatical Leave, Los Alamos National Laboratory, 1989-1990
Sabbatical Leave, University of Pavia, Italy, Winter, 2004

Professional Activities

Extramural research funding from American Chemical Society (ACS/PRF), National Science Foundation (including Creativity Award), NATO, American Institute of Physics, Associated Western Universities, Office of Naval Research, The Camille and Henry Dreyfus Foundation (Scholar/Fellow Program), Research Corporation; ~65 publications in peer-reviewed journals, ~60 presentations at professional meetings, invited seminars: research, professional development and educational issues.

Consulting

Gow-Mac Instrument Company, Madison, New Jersey
January 1972-September 1972, Developed and successfully operated a new design of refractive index detector for liquid chromatography. This work led to a patent for the Christiansen effect detector for liquid chromatography.
Arete Associates, Encino, California

1981-1982, Consulted on classified defense related projects.
(DOD Secret clearance, inactive)

Los Alamos National Laboratory, Los Alamos, New Mexico
1984-2004, Consulted on a variety of research projects involving the applications of lasers to chemical problems. (DOE Q clearance, inactive)
Council on Undergraduate Research - Program Review Consultant (Active)
American Chemical Society - Committee on Professional Training, Visiting Associate (inactive since joining the committee as a sitting member)
American Chemical Society – member, Committee on Professional Training (2008-2012)
Horiba Crystal Products, Inc., Phoenix, Arizona (Inactive)

Grants

University of Southern California Research Award (1978)
Research Corporation (1978-1982)
American Chemical Society Petroleum Research Fund (1979-1981)
National Science Foundation - Basic Research Award (1980-1983)
Office of Naval Research (1981-1984)
Associated Western Universities (1984, 1987, 1988)
National Science Foundation -
Research at Undergraduate Institutions (1991-1994)
Creativity Award Extension (1995-1997)
Research Corporation, Partners in Science (1991-1993)
NATO Collaborative Research Grant (with P. Benetti, University of Pavia, Italy, 1991-1994)
Camille and Henry Dreyfus Scholar, 1994-96
American Institute of Physics - Laser Science Topical Group (1995)
National Science Foundation – CILI (co-PI, 2001-2003)
Research Corporation, Department Development Award (2001-2008)
Research Corporation, Cottrell Research Award (2000-2006)

Professional/Honor Society Memberships and Activities

Phi Beta Kappa (Honor, Scholastic)
Phi Kappa Phi (Honor, Research)
Kappa Mu Epsilon (Mathematics)
Sigma Xi (Science, Research)
Council on Undergraduate Research,
Councilor (1993-2002), visiting consultant and workshop facilitator
Telluride Science Research Center, Board of Directors, 2010-2013
American Chemical Society, member of the Committee on Professional Training, 2008-2012
Vice Chair, ACS/CPT 2012
American Physical Society

Publications of Ron C. Estler

W. M. St. John III, R. C. Estler, and J. P. Doering, "Low Energy Electron Impact Study of Acetone", J. Chem. Phys. **61**, 763 (1974).

R. C. Estler and J. P. Doering, "High Energy-Resolution Studies of Electron Impact Optical Excitation Functions. II. The First Positive System of Nitrogen", J. Chem. Phys. **65**, 1406 (1976).

R. C. Estler, D. Lubman, and R. N. Zare, "Comment on the Reactions of F_2 + CH_3I, CF_3I, CH_2I_2, and HI", Faraday Disc. Chem. Soc. **62**, 317 (1977).

R. C. Estler and R. N. Zare, "Determinations of Bond Energies by Time-of-Flight Single-Collision Chemiluminescence", Chem. Phys. **28**, 253 (1978).

R. C. Estler and R. N. Zare, "Laser-Induced Chemiluminescence: Variation of Reaction Rates with Reagent Approach Geometry", J. Am. Chem. Soc. **100**, 1323 (1978).

Z. Karny, R. C. Estler, and R. N. Zare, "Effect of Reagent Orientation and Rotation Upon Product State Distribution in the Reaction Sr + HF (v=1,J) → SrF (v',J') + H", J. Chem. Phys. **69**, 5199 (1978).

R. C. Estler and R. N. Zare, "Determinations of BaI and BaBr Bond Energies by Time-of-Flight Single-Collision Chemiluminescence", in *High Temperature Metal Halide Chemistry*, ed. D. L. Hildenbrand and D. D. Cubicciotti, The Electrochemical Society P**78-1**, 263 (1978).

T. Kiang, R. C. Estler, and R. N. Zare, "Upper and Lower Bounds of the F_5S-F Bond Energy", J. Chem. Phys. **70**, 5925 (1979).

R. C. Estler, " A Very Low Cost Data Reduction and Control System Based Upon the Rockwell Aim-65 Microcomputer", Rev. Sci. Instrum. **51**, 1428 (1980).

C. K. Man and R. C. Estler, "The Dynamics of the Reaction Sr + HF (v=1) → SrF + H: Effect of Rotation", J. Chem. Phys. **75**, 2779 (1981).

G. Radhakrishnan, D. Ng, and R.C. Estler, "Multiphoton Ionization Detection of Photodissociation Fragments: NO from NO_2 ", Chem. Phys. Lett. **84**, 260 (1981).

G. Radhakrishnan, R. C. Estler, "Multiphoton Ionization Detection of Photodissociation Fragments: NO from CH_3ONO, C_2H_5ONO, and C_3H_7ONO ", Chem. Phys. Lett. **100**, 403 (1983).

N. S. Nogar, C. M. Miller, and R. C. Estler, "Pulsed Laser Desorption for Resonance Ionization Mass Spectrometry", Anal. Chem. **57**, 2441 (1985).

N. S. Nogar and R. C. Estler, "Investigation of Optical Damage via Resonance Ionization Mass Spectrometry", in *Laser Induced Damage in Optical Materials, 1985,* Natl. Bur. Stand. U. S. Spec. Publ. **746**, 61 (1985).

J. J. Tiee, R. K. Sander, C. R. Quick, Jr., R. J. Romero, and R. Estler, "Lifetime and Quenching Measurements of C_2H Emission Produced by Vacuum Ultraviolet Photolysis of C_2H_2", SPIE - Int. Soc. Opt. Eng. **540**, 322 (1985).

E. C. Apel, N. S. Nogar, C. M. Miller, and R. C. Estler, "RIMS Diagnostics for Laser Desorption/Laser Ablation", Inst. Phys. Ser. No. **84**, 179 (1986).

N. S. Nogar, E. C. Apel, and R. C. Estler "Mass Spectrometric Studies of Laser Damage in Calcium Fluoride", in *Laser Induced Damage in Optical Materials, 1986*, Natl. Bur. Stand. U. S. Spec. Publ. **752**, 42 (1986).

R. C. Estler and N. S. Nogar, "Mass Spectroscopic Identification of Wavelength Dependent UV Laser Photoablation Fragments in Polymethylmethracrylate", Appl. Phys. Lett. **49**, 1175 (1986).

J. J. Tiee, R. K. Sander, C. R. Quick, and R. Estler, "Vacuum Ultraviolet Photolysis of Acetylene in the 110-135 nm Region", AIP - Conf. Proc. **147**, 316 (1986).

R. C. Estler, E. C. Apel, and N. S. Nogar, "Laser Mass-Spectrometric Studies of Optical Damage in CaF_2", J. Opt. Soc. Am. B **4**, 281 (1987).

E. C. Apel, J. E. Anderson, R. C. Estler, N. S. Nogar, and C. M. Miller, "Use of Two-Photon Excitation in Resonance Ionization Mass Spectrometry", Appl. Opt. **26**, 1045 (1987).

R. C. Estler, D. M. Mehs, and J. W. Mills, "Undergraduate Laser Projects at Fort Lewis College", Council of Undergraduate Research Newsletter **3**, 42 (1987).

R. C. Estler, J. E. Anderson, E. C. Apel, and N. S. Nogar, "Laser Etching and Evaporation of CaF_2 Studied by Mass Spectrometry", J. Vac. Sci. Technol. B **5**, 1519 (1987).

R. C. Estler and N. S. Nogar, "Mass Spectral Identification of UV-Laser Photoablation Products from Polymers", J. Vac. Sci. Technol. B **5**, 1465 (1987).

C. S. Stransky and R. C. Estler, "Difficult Repairs in Glassware Made Feasible via an Inexpensive (No Cost) Glass Lathe", J. Chem. Ed. **64**, 987 (1987).

N.S. Nogar and R. C. Estler, "A Chemical Precursor to Optical Damage? Studies by Laser Ionization Mass Spectrometry" in *Laser Induced Damage in Optical Materials, 1987*, Natl. Bur. Stand. U. S. Spec. Publ. **756**, 187 (1987).

R. C. Estler and N.S. Nogar, "Chemical Precursor to Optical Damage Detected by Laser Ionization Mass Spectrometry", Appl. Phys. Lett. **52**, 2205 (1988).

N. S. Nogar, R. C. Estler, M. W. Rowe, B. L. Fearey, and C. M. Miller, "Laser Desorption/Ablation Studies by Resonance Ionization Mass Spectroscopy", Inst. Phys. Ser. No. **94**, 147 (1988).

R. Sander, J. Tiee, C. R. Quick. R. J. Romero, and R. C. Estler, "Quenching of C_2H Produced by Vacuum Ultraviolet Photolysis of Acetylene", J. Chem. Phys. **89**, 3495 (1988).

R. C. Estler, N. S. Nogar, and R. A. Schmell, "The Detection, Removal and Effect on Damage Thresholds of Cerium Impurities on Fused Silica", in *Laser Induced Damage in Optical Materials, 1988,* Natl. Inst. Stand. U. S. Spec. Publ. **775**, 183 (1989).

R. C. Estler, "Unique Source for Colored Latex", AMERICAN ANGLER & FLY TYER **Fall**, 8 (1989).

N. S. Nogar and R. C. Estler, "Laser Desorption/Laser Ablation with Detection by Resonance Ionization Mass Spectrometry", in *Lasers in Mass Spectrometry* ed. by David Lubman, Oxford University Press, 1990. (Book Chapter)

R.E. Muenchausen, K.M. Hubbard, S. Foltyn, C. Jenkins, R. C. Estler, and N.S. Nogar, "Effects of Beam Parameters on Excimer Laser Deposition of $YBa_2Cu_3O_{7-\delta}$", Appl. Phys. Lett. **56**, 578 (1990).

X. D. Wu, R. E. Muenchausen, S. Foltyn, R. C. Estler, R. C. Dye, C. Flamme, N. S. Nogar, A. R. Garcia, J. A. Martin, and J. R. Tesmer, "Effect of Depostion Rate on Properties of $YBa_2Cu_3O_{7-\delta}$ Superconducting Thin Films", Appl. Phys. Lett. **56**, 1481 (1990).

N.S. Nogar, R. C. Estler, B.L. Fearey, C.M. Miller, and S. W. Downey, "Materials Analysis by Laser and Ion Beam Sputtering with Resonance Ionization Mass Spectrometry", Nucl. Instr. and Meth. **B44**, 459 (1990).

R. C. Estler and N. S. Nogar, "Laser Mass Spectrometric Studies of High Temperature Superconductor Ablation", SPIE - Int. Soc. Opt. Eng. - *Laser Photoionization and Desorption Surface Analysis Techniques*, **1208**, 154 (1990).

X. D. Wu, R. E. Muenchausen, S. Foltyn, R. C. Estler, R. C. Dye, N. S. Nogar, A.R. Garcia, P.England, R. Ramesh, D. M.Hwanng, T. S. Ravi, C. C. Chang, T. Venkatesan, X. X. Xi, Q. Li, and A. Inam, "Large Critical Current Densities in $YBa_2Cu_3O_{7-x}$ Thin Films Made at High Deposition Rates", Appl. Phys. Lett. **57**, 523 (1990).

R. C. Estler, N. S. Nogar, R. E. Muenchausen, R. C. Dye, C. Flamme, J. A. Martin, A. R. Garcia, and S. Foltyn, "Studies of Laser Annealing of *in-situ* Deposited Thin Films of $YBa_2Cu_3O_{7-\delta}$", Mater. Lett. **9**, 342 (1990).

D.A. Cremers, R.D. Dixon, R.C. Estler, G.K. Lewis, J.L. Lyman, R.E. Muenchausen, N.S. Nogar, and M. Piltch, "Direct Laser/Materials Interaction: Laser Ablation of Superconducting Materials and Laser Welding", High Temperature Sci. **27**, 439 (1990).

R. C. Estler, S. Foltyn, A. R. Garcia, R. E. Muenchausen, N. S. Nogar, and M. Trkula, "Laser Processing of High Temperature Superconducting Thin Films" Mater. Manuf. Processes **5**, 529 (1990).

R. E. Muenchausen, X. D. Wu, R. C. Dye, K. M. Hubbard, R. C. Estler, C. Flamme, R. Brainard, S. Foltyn, J. Tesmer, M. Maley, J. Martin, and N. S. Nogar, "Effects of Processing Parameters of the Excimer Laser Deposition of $YBa_2Cu_3O_{7-\delta}$ Thin Films" , Mater. Res. Soc. Symp. Proc. **169**, 439 (1990).

R. E. Muenchausen, R. C. Dye, R. C. Estler, S. Foltyn, A. R. Garcia, K.M. Hubbard, N. S. Nogar, X.D. Wu, A. Carim, A. Mukherjee, and S.R.J. Brueck, "Pulsed Laser Processing of High Temperature Superconducting Thin Films", Int. Sampe Electron. Conf. **4**, 302 (1990).

R. C. Dye, S. Foltyn, J.A. Martin, N.S. Nogar, R. C. Estler, and R. E. Muenchausen, "Post-Deposition Patterning of Laser Deposited $YBa_2Cu_3O_{7-\delta}$ Films", Mater. Res. Soc. Symp. Proc. **191**, 193 (1990).

S. R. Foltyn, R. E. Muenchausen, R. C. Estler, E. Peterson, W.B. Hutchinson, K.C. Ott, N.S. Nogar, R. C. Dye, X. D. Wu, " Influence of Beam and Target Properties on the Excimer Laser Deposition of $YBa_2Cu_3O_{7-x}$ Thin Films", Mater. Res. Soc. Symp. Proc. **191**, 205 (1990).

R. E. Muenchausen, X. D. Wu, S. R. Foltyn, R. C. Estler, R. C. Dye, A. R. Garcia, and N.S. Nogar, " High Rate Growth of $YBa_2Cu_3O_{7-x}$ Thin Films Using Pulsed Laser Deposition", Mater. Res. Soc. Symp. Proc. **191**, 177 (1990).

D. W. Cooke, P. N. Arendt, E. R. Gray, R. E. Muenchausen, B. L. Bennett, S. R. Foltyn, R. C. Estler, X. D. Wu, G. A. Greeves, and D. R. Brown, "Microwave Properties of HTS Films", Proc. Int. Conf. Electon. Mater., 2nd. **93** (1990).

N. S. Nogar and R. C. Estler, "Resonance Ionization Mass Spectrometry for Materials Analysis and Characterization", SPIE - Int. Soc. Opt. Eng. - *Optical Spectroscopic Instrumentation and Techniques for the 1990s,* **1318**, 52 (1990).

X. D. Wu, Venkatesan, X. X. Xi, Q. Li, A. Inam, P.England, R. Ramesh, D. M.Hwanng, T. S. Ravi, C. C. Chang, R. E. Muenchausen, S. Foltyn, R. C. Estler, R. C. Dye, A.R. Garcia, and N. S. Nogar, "Pulsed Laser Deposition of High T_c Superconducting thin Films: Present and Future", Mater. Res. Soc. Symp. Proc. **191**, 129 (1990).

R. C. Estler, N.S. Nogar, R.E. Muenchausen, X. D. Wu, S. Foltyn, and A. R. Garcia, "A Versatile Substrate Heater for Use in Oxidizing Atmospheres", Rev. Sci. Instrum. **62**, 437 (1991).

R. C. Estler and N. S. Nogar, "Ablation of High Temperature Superconductor Studied by Resonance Ionization Mass Spectrometry (RIMS)", J. Appl. Phys. **69**, 1654 (1991).

X. D. Wu, R. E. Muenchausen, S. Foltyn, R. C. Estler, N. S. Nogar, A.D. Rollett, C. C. Chang, P.England, R. Ramesh, D. M.Hwanng, T. S. Ravi, "Properties of Superconducting $YBa_2Cu_3O_{7-x}$ Thin Films Made at High Deposition Rates", IEEE Transations on Magnetics **27**, 1445 (1991).

R. E. Muenchausen, S. R. Foltyn , N.S. Nogar, R. C. Estler, E. J. Peterson, and X. D. Wu, , "Laser-Induced Target Modification Effects on Pulsed Laser Depositions of Y-Ba-Cu-O Superconducting Thin Films, Nucl. Instr. and Meth. **A303**, 204 (1991).

S. R. Foltyn , R. C. Dye, K. C. Ott, E. J. Peterson, R. E. Muenchausen, X. D. Wu, K. M. Hubbard, W. Hutchinson, and R. C. Estler , "Target Modification in the Excimer Laser Deposition of $YBa_2Cu_3O_{7-x}$ Thin Films, Appl. Phys. Lett. **59**, 594 (1991).

R.C. Estler, "Software Simulations of Fourier Transform Experiments", J. Chem. Ed. **68**, A220 (1991).

R. C. Estler and N. S. Nogar, "Chromium Detection by Laser Desorption and Resonance Ionization Mass Spectrometry", Anal. Chem. **64**, 465 (1992).

J. Zoller, R. Lewis, G. Rothschopf and R. Estler, "ShoeString Resonance Ionization Mass Spectrometry (SSRIMS)", Inst. Phys. Ser. No. **128**: Section 6 237 (1992).

N. S. Nogar, R. C. Estler, J. Conia, and P. Jackson, "Detection of Copper in Isolated Plant Cells by Resonance Ionization Mass Spectrometry", Anal. Chem. **64**, 2972 (1992).

R. C. Estler and N. S. Nogar, "Chromium Determination in NIST Standard Urine by Resonance Ionization Mass Spectrometry", *Spectrochimica Acta* **40B**, 663 (1993).

R.C. Estler, "RIS in the Undergraduate-Only Institution: Research?", Resonances, **2**, Winter 1994.

P. Dal Pozzo, L. Lewis and R. Estler, "A Fluorescent Platform for Ultraviolet Laser Desorption Studies", Review of Scientific Instruments, Rev. Sci. Instrum. **66**, 5383 (1995).

Gretchen Rothschopf, J. Zoller, R. Lewis, C. Grant, R. Schur, and R. Estler, "Electronic State Detection/Partitioning of Atomic Nickel During Resonant Laser Ablation", Int. J. of Mass Spectrom. Ion Processes, **151**, 167 (1995).

R. C. Estler, "Frequency Data Collection Calibrations Using Shortwave Radio Signals", J. Chem. Ed. **77**, 1244 (2000).

R. C. Estler, “Questo soriso ha ‘fulminato’ un ciclista Lombardo…” photo credit, Cicloturismo, Giugno 2004.

M. Frantz, J. White, L. Lewis and R. Estler ”Investigation of Matrix/Biomolecule Ratios in Matrix Assisted laser Desorption Ionization (MALDI) Mass Spectrometry”. in preparation for publication, Rapid Communications in Mass Spectrometry.

C. Grant, G. Rothschopf, R. Estler, “Resonant Laser Ablation of Nickel From Within a Polymer Matrix: Ablative Electronic Cooling”, in preparation for publication, International Journal of Mass Spectrometry and Ion Processes.

D. Ladd and R. C. Estler, “Simultaneously Encoding Multiple Frequencies and Amplitudes in Porous Silicon Rugate Filters”, in preparation for publication, Applied Optics Letters.

PhD Theses (Carried out under the direction of Ron C. Estler)

Gouri Radhakrishnan, "Multiphoton Ionization Studies of the Photodissociations of Nitrogen Dioxide, Nitrosyl Chloride, and Alkyl Nitrites", University of Southern California, 1982.

Chiu-Kwan Man, "The Study of the Reaction Dynamics of Sr + HF and Ca + HX", University of Southern California, 1982.

Ron C. Estler, Publications Have Appeared in…

Journal of Chemical Physics
Faraday Discussions of the Chemical Society
Chemical Physics
Journal of the American Chemical Society
The Electrochemical Society Journal
Review of Scientific Instruments
Chemical Physics Letters
Analytical Chemistry
Journal of the International Society of Optical Engineering
Applied Physics Letters
Journal of the Optical Society of America
Applied Optics
Council of Undergraduate Research Newsletter
Journal of Vacuum Science and Technology B
Journal of Chemical Education
Applied Physics Letters
American Angler & Fly Tyer
Nuclear Instrumentation and Methods A
Nuclear Instrumentation and Methods B
Material Letters
High Temperature Science
Materials Manufacturing Processes
Journal of Applied Physics
IEEE Transations on Magnetics
Spectrochimica Acta B
Resonances
International Journal of Mass Spectrometry and Ion Processes

Ron C. Estler - Professional Presentations
(Oral Presentations Unless Otherwise Indicated)

"Flash Photolysis of $[Co(NH_3)_5 Br] Br_2$: The Photo-Initiation of Br_2", R. C. Estler, Intercollegiate Council of ACS Student Affiliate Chapters, Sandoz-Wander, Inc., East Hanover, New Jersey, May, 1972.

"Determinations of Bond Energies by Time-of-Flight Single-Collision Chemiluminescence", R. C. Estler and R. N. Zare, Electrochemical Society Meeting, Atlanta, Georgia, October 1977.

Invited Talk: "State-to-State Studies of Atom-Diatom Exchange Reactions", R. C. Estler, American Chemical Society/Chemical Society of Japan Chemical Congress, Honolulu, Hawaii, April 1979.

"The Effect of Rotation in the Reaction $Sr + HF(v=1) \rightarrow SrF + H$", C. K. Man and R. C. Estler, American Chemical Society Meeting, New York, New York, August 1981.

"Multiphoton Ionization Detection of Photodissociation Fragments: NO from NO_2", G. Radhakrishnan, D. Ng, and R. C. Estler, American Chemical Society Meeting, New York, New York, August 1981.

"Multiphoton Ionization Detection of Photodissociation Fragments",
G. Radhakrishnan and R. C. Estler, Pacific Conference of Chemistry and Spectroscopy, Anaheim, California, October 1981.

"Multiphoton Ionization Studies of the Photodissociation of Alkyl Nitrites", R. C. Estler, Conference on Lasers and Electro-Optics (CLEO), Baltimore, Maryland, May 1983.

"RIMS as a Diagnostic for Optical Damage", N. S. Nogar and R. C. Estler, 17th Annual Symposium on Optical Materials for High Power Lasers, Boulder, Colorado, October, 1985.

"Lifetime and Quenching Measurements of C_2H Emission Produced by Vacuum Ultraviolet Photolysis of C_2H_2", J. J. Tiee, R. K. Sander, C. R. Quick, Jr., R. J. Romero, and R. Estler, SPIE - Southwest Conference on Optics, Santa Fe, New Mexico, 1985.

"Laser Desorption Mass Spectrometry", E. C. Apel, R. C. Estler, and N. S. Nogar, Rocky Mountain Regional ACS Meeting, Denver, Colorado, June, 1986.

"Vacuum Ultraviolet Photolysis of Acetylene in the 110-135 nm Region", J. J. Tiee, R. K. Sander, C. R. Quick, and R. Estler, ", AIP - Conference on Short Wavelength Coherent Radiation: General Applications, 1986.

"RIMS Diagnostics for Laser Desorption/Laser Ablation", E. C. Apel, N. S. Nogar, C. M. Miller, and R. C. Estler, International Symposium on Resonance Ionization Spectroscopy and Its Applications, Swansea, Wales, United Kingdom, September, 1986.

"Optical Damage in CaF_2 Studied by Laser Ionization Mass Spectrometry", R. C. Estler, E. C. Apel, and N. S. Nogar, 18th Annual Symposium on Optical Materials for High Power Lasers, Boulder, Colorado, November, 1986.

"Applications of Resonance Ionization Mass Spectrometry in Analytical Spectroscopy", N. S. Nogar, E. C. Apel, C. M. Miller, and R. C. Estler, Optical Society of America: Lasers in Chemical Analysis, Lake Tahoe, California, January, 1987

"Laser Etching and Evaporation of CaF_2 Studied by Mass Spectrometry",

R. C. Estler, E. C. Apel, and N. S. Nogar, Optical Society of America: Microphysics of Surfaces, Beams and Adsorbates, Santa Fe, New Mexico, February, 1987.

"Mass Spectral Identification of UV-Laser Photoablation Products from Polymers", R. C. Estler and N. S. Nogar, Optical Society of America: Microphysics of Surfaces, Beams and Adsorbates, Santa Fe, New Mexico, February, 1987.

"Keeping Chemistry Majors in Chemistry", R. C. Estler, Rocky Mountain Chairmen's Conference, Salt Lake City, October, 1987.

"A Chemical Precursor to Optical Damage? Studies by Laser Ionization Mass Spectrometry", R. C. Estler and N. S. Nogar, 19th Annual Symposium on Optical Materials for High Power Lasers, Boulder, Colorado, November, 1987.

"Wavelength Dependence of Polymer Photoablation", R. C. Estler and N. S. Nogar, Optical Society of America Topical Meeting on Free-Electron Applications in the Ultraviolet, Cloudcroft, New Mexico, March 1988.

"Laser Desorption/Ablation Studies by Resonance Ionization Mass Spectrometry", R. C. Estler, N. S. Nogar, B. L. Fearey, C. M. Miller, and M. W. Rowe, Fourth International Symposium on Resonance Ionization Spectroscopy and Its Applications, National Bureau of Standards, Gaithersburg, Maryland, April, 1988.

Invited Talk: "Laser Desorption Mass Spectrometry", N. S. Nogar and R. C. Estler, 41st Annual Summer Symposium on Analytical Chemistry: Lasers in Analytical Chemistry, Stanford, California, June, 1988.

"The Detection, Removal and Effect on Damage Thresholds of Cerium Impurities on Fused Silica", R. C. Estler, N. S. Nogar, and R. A. Schmell, 20th Annual Symposium on Optical Materials for High Power Lasers, Boulder, Colorado, October, 1988.

"Direct Laser/Materials Interaction: Laser Ablation of Superconducting Materials and Laser Welding", D.A. Cremers, R.D. Dixon, R.C. Estler, G.K. Lewis, J.L. Lyman, R.E. Muenchausen, N.S. Nogar, and M. Piltch, High Temperature Materials Chemistry 89, Sixth International Conference on High Temperatures - Chemistry of Inorganic Materials, Gaithersburg, Maryland, April, 1989.

"Laser Ablation for the Production of Thallium-Containing High Temperature Superconducting Thin Films", P. Arendt, R. C. Estler, A. R. Garcia, R. E. Muenchausen, N. S. Nogar, and M. Trkula, Materials Research Society Spring Meeting, San Diego, California, April 1989.

Invited Talk: "Materials Analysis by Laser- and Ion Beam- Sputtering with Resonance Ionization Mass Spectrometry", R. C. Estler and N. S. Nogar, International Ions Beams Conference, Kingston, Ontario, Canada, June, 1989.

"Effects of Processing Parameters on the Excimer Laser Deposition of $YBa_2Cu_3O_{7-x}$ Thin Films", R. E. Muenchausen, R. C. Estler, et.al., Materials Research Society, Boston, Massachusetts, November, 1989.

"Laser Mass Spectrometric Studies of High Temperature Superconductor Ablation", R. C. Estler and N. S. Nogar, International Society for Optical Engineering, SPIE conference, Los Angeles, California, January 1990.

"Properties of $YBa_2Cu_3O_{7-x}$ Superconducting Thin Films Made at High Deposition Rate", R. E. Muenchausen, R. C. Estler, et.al., American Physical Society, March 1990.

"Influence of Beam and Target Properties on the Excimer Laser Deposition of $YBa_2Cu_3O_{7-x}$ Thin Films", S. Foltyn, R. C. Estler, et.al., Materials Research Society, San Francisco, California, April 1990.

"Effects of Processing Parameters on the Excimer Laser Deposition of $YBa_2Cu_3O_{7-x}$ Thin Films II", R. E. Muenchausen, R. C. Estler, et.al., Materials Research Society, San Francisco, California, April 1990.

"Laser Ablation and Laser Processing for the Production of High Quality HTSC Thin Films", N.S. Nogar, R. C. Estler, et.al., American Physical Society, Minneapolis, Minnesota, September, 1990.

Invited Talk: "Spectrochemical Analysis of Laser-Desorbed Plumes", N.S. Nogar and R. C. Estler, American Physical Society, Minneapolis, Minnesota, September, 1990.

"The Determination of Cr in Urine by Resonance Ionization Mass Spectrometry (RIMS) - Isotope Dilution Analysis", R. C. Estler and N. S. Nogar, The Alfred O. Nier Symposium on Inorganic Mass Spectrometry, Durango, Colorado, May 1991. POSTER

"Incorporation of Fourier Transform Instrumentation into the Undergraduate Curriculum", R. C. Estler, J. W. Mills, and W. R. Bartlett, American Chemical Society Meeting, New York, New York, August 1991.

"Trace Metal Detection by Resonance Ionization Mass Spectrometry", J. Zoller and R.C. Estler, Sixth National Conference on Undergraduate Research, Minneapolis, Minnesota, March, 1992.

"ShoeString Resonance Ionization Mass Spectrometry (SSRIMS)", J. Zoller, R. Lewis, G. Rothschopf and R. Estler, Sixth International Symposium on Resonance Ionization Spectroscopy, Santa Fe, New Mexico, May, 1992. POSTER

"Resonance Ionization Studies of Laser Desorption", R. Estler, Invited Seminar, Departimento di Fisica, Universita di Pisa, Pisa, Italy, July 1992.

"Time-of-Flight Resonance Ionization Mass Spectrometry (RIMS) of Ni", G. Rothschopf, R. Lewis, and R. C. Estler, American Chemical Society Meeting, Denver, Colorado, March 1993. POSTER

"Incorporation of Fourier Transform Techniques into the Undergraduate Physical Chemistry Laboratory", R. C. Estler, L. Sommerville and J. W. Mills, American Chemical Society Meeting, Chicago, Illinois, August 1993.

"Studies of the Optimum Matrix/Biopolymer Ratio in Matrix Assisted Laser Desorption (MALD) Mass Spectrometry", J. White and R. C. Estler, American Chemical Society Meeting, San Diego, California, March 1994. POSTER

"Measurement of the Electronic Temperature of Nickel During Laser Ablation", C. Grant, G. Rothschopf and R. C. Estler, American Chemical Society Meeting, San Diego, California, March 1994. POSTER

"How to Succeed in Grant Writing in Chemistry", R. C. Estler, Council on Undergraduate Research April Dialogue, Washington, D.C., April 1995.

"Investigation of Optimum Matrix/Biopolymer Ratios in Matrix Assisted Laser Desorption Ionization (MALDI) Mass Spectrometry", M. Frantz, J. White, L. Lewis, and R. C. Estler, American Chemical Society Meeting, Anaheim, California, April 1995. POSTER

"Getting a Job at a PUI", J. M. Ritchey and R. C. Estler, Los Alamos National Laboratory, Los Alamos, New Mexico, December, 1995.

"Undergraduate Research Changed My Life", Eastern Midwest PKAL Regional Conference, South Bend, Indiana, March 1997. Keynote Speaker.

"Laser Mass Spectrometry from Tens of Daltons to Tens of Thousands of Daltons", R. C. Estler, University of Oregon, November 1997.

“How to Get a Job at a PUI”, R. C. Estler, Sponsored by the Council on Undergraduate Research, University of Oregon, November 1997.

“Faculty Collaborations with National Laboratories”, R. C. Estler, Council on Undergraduate Research Institute, Bates College, May 1998

“Departmental Role in Revitalizing Mid-Career Faculty”, R. C. Estler, Council on Undergraduate Research Institute, Trinity University, February, 1999.

“Institutionalizing Research for the Bottom Up: Lessons Along the Way”, R. C. Estler, Council on Undergraduate Research Institute, University of Wisconsin, La Crosse, October 1999.

“Developing an Empowering Departmental Culture”, R. C. Estler, Council on Undergraduate Research Institute, The College of William and Mary, February, 2000.

"Getting a Job at a Primarily Undergraduate Institution (PUI)". R. C. Estler, Stanford University, March 30, 2000.

“Issues and Challenges of Undergraduate Research at a Public PUI”, R. C. Estler, Biennial Conference on Chemical Education: Undergraduate Research: Cornerstone of a Chemical Degree, Western Washington University, July 30, 2002.

“Wavelet Analysis: What Joe Fourier Didn’t Tell You” (or “Separating Good Hearts From Bad”) R. C. Estler, Fort Lewis College Chemistry Seminar, October 11, 2002.

“Investigation of Optimum Surface Modification in Porous Silicon for Negative Ion DIOS (Desorption Ionization on Silicon) Mass Spectrometry, Liam Jacobson and Ron Estler, American Chemical Society Meeting, New Orleans, LA , March 2003. POSTER

“Undergraduate Research Changed My Life”, R. C. Estler, Pepperdine University, (Invited Chemistry Department seminar), March 2003.

“You Want Me To Do What?”, R. C. Estler, Durango High School, invited graduation address, May 24, 2003.

“Developing an Empowering Departmental Culture”, R. C. Estler, Council on Undergraduate Research Institute, Furman University, March, 2004.

“Computational Chemistry Opportunities at Fort Lewis College” R. C. Estler, Fort Lewis College Chemistry Seminar, October 15, 2004.

“Beetles, Butterflies, Birds, and Nanotechnology” R. C. Estler, Fort Lewis College, Professional Associates presentation – a seminar for the lay public, March 22, 2007.

“Wood, Beetles, Butterflies, Birds, and Nanophotonics” R. C. Estler, Fort Lewis College Chemistry Seminar, October 5, 2007.

“Separating Good Hearts from Bad with Wavelets” R. C. Estler, Fort Lewis College, Four Corners Chapter of Sigma Xi Luncheon Lecture Series, November 6, 2007.

"Simultaneously Encoding Multiple Frequencies and Amplitudes in Porous Silicon Rugate Filters", Danielle Ladd and Ron Estler, American Chemical Society Meeting, New Orleans, LA, April 2008. POSTER

"Revisions to the ACS Guidelines for Undergraduate Programs: Motivation, Changes, and Possibilities" R. C. Estler, The Midstates Consortium for Math and Science workshop, The Impact of Changes in ACS Guidelines, Colorado College, June 27, 2008.

"Perceptions and Challenges in Engaging Native American Students in Chemistry", Omaha, Nebraska (Part of the American Chemical Society workshop on increasing Native American student participation in the field of chemistry. Workshop organizer and presenter.) September 2008.

"With a Lot of Help From My Friends…", Durango Adult Education Center, invited graduation address, June 1, 2011.

"Under Pressure: Fun with Air and No Air". Pinhead Institute Evening Lecture Series, Telluride, Colorado, July 12, 2011.

"Marvelous Molecules of Wacky Water". Pinhead Institute Evening Lecture Series, Telluride, Colorado, July 10, 2012.

"Remembering the Work and Impact of John P. Doering", The Johns Hopkins University, August 20, 2012.

Ron C. Estler - Institutions Where Research Seminars Have Been Presented

California Institute of Technology
University of Illinois
University of Maryland
Drew University
University of the Pacific
Johns Hopkins University
California State University
- Hayward
- Long Beach
- Los Angeles
- San Jose

University of California, Berkeley
Purdue University
University of Oregon
Princeton University
Columbia University
Stanford University
Fort Lewis College
University of Utah
University of New Mexico
Utah State University
University of Southern California
University of Pavia (Italy)
University of Pisa (Italy)
Fort Lewis College
Los Alamos National Laboratory

Ron C. Estler - Institutions Where Professional Development Seminars Have Been Presented

University of Oregon
Bates College
University of Wisconsin, La Crosse
Trinity University
Albion College
St. Mary's College
College of William and Mary
Colorado College
Western Washington University
Various Professional Society Meetings

Ron C. Estler - Institutions Where Professional Reviews Have Been Performed and Submitted (by Invitation)

Northern Arizona University
Moorhead State University
University of the South
Gustavus Adolphus College
Loras College
Coe College
Goucher College
Western State College
University of Texas, Tyler
Furman University
University of Wisconsin, Eau Claire