Veronica Egan

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CAREER OBJECTIVE

To obtain a research position in industry emphasizing leadership and creativity

EDUCATION

University of California, Los Angeles (UCLA)
Ph.D. in Chemistry June 2001

Humboldt State University
B.S. Degrees in both Chemistry and Biochemistry June 1996

SUMMARY OF SKILLS

- Conducted individual and collaborative research in materials chemistry, specializing in polymers
- Extensive experience in writing and editing papers for prestigious journals, and government-funded National Institute of Health (NIH) research grant.
- Highly dynamic and effective communication skills targeting both general and specific audiences
- Sharp analytical mind for effective problem solving of research and laboratory management issues
- Extensive experience in training, supervising, and evaluating graduate and undergraduate researchers

EXPERIENCE

Research Assistant and Associate
Department of Chemistry and Biochemistry, UCLA 1997-present

- Independently designed experiments and analyzed data for multiple research projects
- Studied and characterized a novel chiral polymer as a new substrate for enantiorecognition of chiral targets
- Comprehensively investigated the behavior of the chiral morphology in camphorsulfonic acid doped polyaniline under many different conditions (i.e. varying temperature, water content and molecular weight of polymer)
- Examined the mechanism for the induction of chirality via circular dichroism (CD) studies of polyaniline with differing % enantiomeric excess of incorporated chiral dopant.
- Prepared and analyzed free-standing membranes, thin films, powders and solutions of polyaniline doped with chiral and achiral dopants using various spectroscopic and material instrumentation
- Maintained and operated a high vacuum system for determining the permeability of gases through polyaniline membranes
- Collaborated with the Aerospace Corporation in designing polyaniline based sensors for hydrochloric acid and other space shuttle launch emissions

Teaching Assistant
Department of Chemistry and Biochemistry, UCLA 1996-1998

- Assisted in the writing and compilation of a new laboratory manual for undergraduate teaching
- Organized and executed recitation sections for various undergraduate chemistry courses
- Supervised demanding instrumental analysis teaching laboratory associated with upper division lecture, which involved designing experiments, and repairing/troubleshooting instrumentation.

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Chemistry Lecturer
Hyperlearning, Westwood, CA Summer 2000

- Prepared a comprehensive general chemistry lecture series for an accelerated nine week course
- Delivered weekly two and a half hour lectures to large sections of students preparing for the Medical College Admission Test (MCAT)

TECHNICAL SKILLS

- Analytical Skills: High Performance Liquid Chromatography (HPLC), Gas Chromatography with Mass Spectroscopy (GC-MS), Atomic Adsorption (AA), Atomic Emission (AE), Gel Permeation Chromatography (GPC), and Gel Electrophoresis
- Spectroscopy: Ultra-Violet-Visible (UV-Vis), infrared (IR), and Nuclear Magnetic Resonance (NMR)
- Chirality Measurement: Circular Dichroism (CD) Spectroscopy, and Polarimetry
- Characterization of Materials: Thermal Gravimetric Analysis (TGA), Differential Scanning Calorimetry (DSC), and Surface Area Analysis with nitrogen using Brunauer-Emmet-Teller (BET) Analysis
- High Vacuum and Inert Atmosphere Conditions: Gas Separation Apparatus, and Dry Box

WRITING & COMPUTER SKILLS

- Co-founded a new research journal at UCLA - Graduate Science Journal (GSJ): *www.studentgroups.ucla.edu/gsj*
  - Collaborated with nine other science graduate students in starting, funding, designing and publishing GSJ
  - Edited articles from non-chemistry graduate students
- Extensive experience with Microsoft Office programs, such as Word, PowerPoint and Excel
- Knowledgeable in the use of both IBM-PC and Macintosh systems
- Programmed in C++ and HTML

AWARDS & HONORS

- Advance to Candidacy Fellowship, UCLA Summer 1999
- Distinguished Teaching Award, UCLA Fall 1998
- National Science Foundation (NSF) Summer Research Fellowship Summer 1995
- Accomplished Writing Award, Humboldt State University Spring 1994

PUBLICATIONS & PRESENTATIONS

- "Synthesis of Chiral Polyaniline and its Memory Effects," Guo, H.; Egan, V.; Bernstein, R.; Knobler, C.; Kaner, R. *Polymer Preprints* **2000** *41*, 898-899.
- "Chiral Separation of Amino Acids Based on a New Chiral Recognition Polymer," Guo, H.; Egan, V.; Knobler, C.; Kaner, R. *Polymer Preprints* **1999** 40, 506-507.
- "Influence of Water on the Chirality of Camphorsulfonic Acid Doped Polyaniline," Egan, V.; Bernstein, R.; Tran T.; Hohmann, L.; Kaner, R. *Angewandte Chemie International Edition*, (manuscript submitted).
- "Behavior of Chiral Polyaniline," Egan, V.; Bernstein, R.; Tran, T.; Kaner, R. (manuscript in preparation).
- "Dendrimers - Applications of a Novel Molecule," Egan, V. *UCLA Graduate Science Journal*, Spring 2000.
- "The Effects of Water on Chiral Polyaniline," Egan, V.; Bernstein, R.; Tran, T.; Hohmann, L.; Kaner, R. Pacifichem 2000, Honolulu, HI, December 2000.
- "Circular Dichroism Studies of Chiral Polyaniline," Egan, V.; Bernstein, R.; Kaner, R. Chemistry and Biochemistry Advances in Research Forum, UCLA, Los Angeles, CA, March 1999.