

GARY RITZHAUPT

18372 S. 154th East Ave.

Bixby, OK 74008

(918) 366-2567 (home)

(918) 495-6925 (work)

SELECTED ACHIEVEMENTS

- Received campus wide undergraduate teaching award in 1988 from Phi Eta Sigma while at Oklahoma State University.
 - Listed in Who's Who Among American Teachers in 1994 and 2000 while at Oral Roberts University.
 - Spectroscopic investigations resulted in the publication of fifteen articles in professional chemistry journals.
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TECHNICAL AREAS:

Fourier transform and dispersive infrared techniques
Matrix-isolation spectroscopy
Instrumentation and computer programming
Proficient in Microsoft PowerPoint, Excel, and Word
General Analytical Laboratory expertise

EDUCATION:

Oklahoma State University, Stillwater, OK
M.S. in Higher Education - Chemistry

Ohio University, Athens, Ohio
B.S. in Chemistry, Mathematics minor

EXPERIENCE:

Savannah River Technology Center, Aiken, SC
ORISE Summer Faculty

Summers 1998-2000

Responsible for compiling validation and modeling data bases to test DWPF process models for vitrification of nuclear waste.

Oral Roberts University, Tulsa, OK
Chemistry Instructor

Fall 1990 - present

Responsible for teaching General Chemistry, lectures and laboratories; worked with WordPerfect, Microsoft Word and Quattro Pro to prepare tests and grades.

Tulsa Community College, Tulsa, OK
Adjunct Instructor

Spring 1992 - present

Responsible for teaching one course per semester in General Chemistry, lecture and laboratory.

PUBLICATIONS:

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Brown, K.G., C.M. Jantzen, and G. Ritzhaupt. **2001**. *Relating Liquidus Temperature to Composition for the Defense Waste Processing Facility (DWPF) Process Control*, WSRC-TR-2001-00520, Westinghouse Savannah River Company, Aiken, SC.

Jantzen, C. M., K. G. Brown, J. B. Pickett, and G. L. Ritzhaupt. **2000**. *Crystalline Phase Separation in Phosphate Containing Waste Glasses: Relevancy to Vitrification of Idaho National Engineering and Environmental Laboratory (I NEEL) High Activity Waste (U)*, WSRC-TR-2000-00339, Westinghouse Savannah River Company, Aiken, South Carolina.

Ritzhaupt, Gary and J. Paul Devlin. "Infrared Spectra of Nitric and Hydrochloric Acid Hydrate Thin Films", *J. Phys. Chem.*, **1991**, 95(1), 90-95.

Wooldridge, Robert, Mark Fisher, Gary Ritzhaupt, and J. Paul Devlin. "Dependence of Ion Pairing and Solvation on Solution Temperature: Evidence from DMSO Solution and Matrix-Solvation Spectra", *J. Chem. Phys.* **1987**, 86(8), 4391-5.

Ritzhaupt, G. and J. Paul Devlin. "Coordination Structures for the Ion Pairs $M^+ClO_3^-$ and $H_2O \cdot M^+ClO_3^-$ from FT-IR Matrix Isolation/Solvation", *J. Phys. Chem.* **1986**, 90(26), 6764-6.

Ritzhaupt, G., Keith Consani and J. Paul Devlin. "Solvation Studies in Argon Matrixes: Details of the Stepwise Formation of S_n Lithium Nitrate Ion Pair Solvates Where S is Water, THF, DMF, and Glyme", *J. Chem. Phys.* **1985**, 82(3), 1167-73.

Ritzhaupt, G., William B. Collier, Cynthia Thornton, and J. Paul Devlin. "Decoupled Vibrational Spectra for H_2O in D_2O Ice I_c ", *Chem. Phys. Letters* **1980**, 70(2), 294-9.

Ritzhaupt, G. and J. Paul Devlin. "Direct Spectroscopic Observation of Proton Transfer Rates: Activation Energy for Proton Exchange in Ice I_c ", *Chem. Phys. Letters* **1979**, 65(3), 592-6.

Ritzhaupt, G., Cynthia Thornton, and J. Paul Devlin. "Infrared Spectrum of D_2O Vibrational Decoupled in H_2O Ice I_c ", *Chem. Phys. Letters*, **1978**, 59(3), 420-2.

Ritzhaupt, G. and J. Paul Devlin. "Infrared Spectrum of D_2O Vibrationally Decoupled in Glassy H_2O ", *J. Chem. Phys.* **1977**, 67(10), 4779-80.

Ritzhaupt, G. and J. Paul Devlin. "Coordination of Water in Alkali Metal Oxy Anion Glasses", *Inorganic Chem.* **1977**, 16, 486-8.

Ritzhaupt, G. and J. Paul Devlin. "Ionic vs. Molecular Nature of Monomeric Ammonium and Hydronium Nitrate, Infrared Spectra of $H_3O^+NO_3^-$ and $NH_4^+NO_3^-$ Solvated in Argon Matrices", *J. Phys. Chem.* **1977**, 81(6), 521-5.

Ritzhaupt, G. and J. Paul Devlin. "Infrared Spectra of $Ti^+NO_3^-$ Ion Pairs Variably Hydrated or Ammoniated in an Argon Matrix", *J. Phys. Chem.* **1977**, 81(1), 67-71.

Ritzhaupt, G. and J. Paul Devlin. "Vibrational Spectra of Molecular Ions Isolated in Glassy and Crystalline Alkali Metal Oxyanion Salt Matrices", *J. Chem. Phys.*, **1976**, 65(12), 5246-9.