

## PROFESSIONAL RESUME

### JOSEPH HOWARD ROMIG

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#### PERSONAL

Date of birth: 4-11-41  
Married with children

#### EDUCATION

Ph.D. –Astrogeophysics, University of Colorado, 1975  
M.S. –Plasma Physics, Oxford, 1965  
B.A. –Physics, University of Colorado, 1963  
Graduate –Lakewood High School, Lakewood, Colorado, 1958

#### PROFESSIONAL SEMINARS

- Magnatek Panel Member; IAAI Conference, Denver, CO May 3, 2006
- International Symposium on Fire Investigation  
(June 27-30, 2004, Fire Service College Moreton-in-Marsh Gloucestershire, UK)
- Certified Vehicle Fire Investigator (NAFI: October 2, 2002, closed book exam).
- 2002 Vehicle Fire, Arson & Explosion Investigation Science & Technology Seminar  
(September 30-October 2, 2002; Co-Sponsors NAFI and Fire and Safety Engineering Technology Eastern Kentucky University).
- 37<sup>th</sup> Annual Fire Investigation Seminar, (Metropolitan Arson Investigators Association, Inc., May 6-10, 2002, Grand Junction, CO, Instructor)
- Vision 2000 Conference: Fire Dynamics; Fire Patterns (IAAI Saskatchewan Chapter #54; November 13-16, 1999; 24 hours; tested and passed)
- Certified Fire Investigation Instructor (NAFI: 8 hour course August 9, 1999; closed book exam)
- Investigation of Gas and Electric Appliance Fires (Fire Findings Seminar; November 14 & 15, 1998; 16 hour course; tested and passed)
- Advanced Arson Investigation Seminar (Denver Fire Department/Colorado Division of Fire Safety/Bureau of Alcohol, Tobacco & Firearms; September 14-18, 1998; 40 hour course; tested and passed)
- Certified Fire and Explosion Investigator (NAFI: closed book exam July 31, 1998)
- 1998 National Fire, Arson, and Explosion Investigation Training Program  
(July 28-31, 1998; Co-Sponsors NFPA and NAFI)
- Seminar: Fundamentals of Mathematical Computer Fire Modeling (NAFI: July 27, 1998)

#### ACCIDENT RECONSTRUCTION

- Origin and cause of gas, mist and dust explosions
- Analysis of gas, mist and dust release, migration and build-up
- Gas, mist and dust explosion analysis and modeling
- Release and migration of flammable and combustible vapors, both above ground and underground
- Origin and cause of residual, commercial, industrial, and vehicle fires
- Fire and smoke propagation and build-up
- Analysis of equipment failure leading to an explosion, fire or carbon monoxide production

- Evaluation of ignition sources
- Pyrotechnic analysis and explosion modeling
- High explosive analysis and explosion modeling

## **MAIN AREAS OF APPLIED RESEARCH**

- Hydrocarbon leaks
- Detection of methane, ethane, propane, butane and heavier hydrocarbons
- Detection of carbon monoxide
- Detection of heat and smoke
- Gas explosions
- Fire origin and propagation
- High explosives
- Secondary recovery of oil and gas by use of electromagnetically generated shock waves
- Search for natural resources using electromagnetic fields
- Energy storage in high dielectric media
- Glass coatings

## **PATENTS**

“Process for Improved Glass Article Coating, and Such Coated Articles”  
 Fogelberg, Clement and Romig, Joe. U. S. Patent 4,289,816, September 15, 1981  
 (Patent also held in approximately fourteen foreign countries.)

## **INVITED TALKS**

“Fires and Explosions”  
 Sigma Xi, University of Colorado, November 4, 1997

“Accidental Fires and Explosions”  
 Combustion Research Institute, University of Colorado, September 23, 1996  
 Fall 1996 Seminar Series

“Forensic Engineering – Fires and Explosions”  
 Engineering Seminar, University of Denver, April 10, 1996

“Investigating a Toxic Tort Case – Underground Storage Tank Leakage”  
 Colorado Trial Lawyers Association, February 23, 1990

## **PROFESSIONAL EXPERIENCE**

Full time positions

September, 1994 – present	Consultant, Fires and Explosions, Ponderosa Associates, Ltd. Lafayette, CO Partner, 1990
1975 – July, 1980	Consultant in Applied Physics and Geophysics, Boulder, CO
November, 1975 – February, 1976	Research Scientist, Science Applications, Inc. Boulder, CO
1971 – 1975	Research Scientist, Martin-Marietta Aerospace Denver, CO
1966 – 1971	Research Assistant, Radio Astronomy Observatory

University of Colorado Boulder, CO

#### Part time positions

June, 1981 – September 1994	Vice President, Radiophysics, Inc. Boulder, CO
July, 1980 – September, 1994	Consultant, Fires and Explosions, Ponderosa Associates, Ltd. Lafayette, CO
July, 1980 – Present 1970 – Present	Consultant in Applied Physics and Engineering Instructor, Continuing Education, University of Colorado Boulder, CO

#### MEMBER

- National Fire Protection Association
- National Association of Fire Investigators
- International Association of Arson Investigators
- International Association of Arson Investigators: Colorado Chapter
- American Association for Advancement of Science
- American Physical Society
- American Geophysical Union
- New York Academy of Sciences
- American Association of Rhodes Scholars
- Sigma Xi
- Phi Beta Kappa

#### HONORS

- National Wrestling Hall of Fame, Colorado Chapter – Outstanding American Award, April 2002
- University of Colorado Athletic Hall of Fame – inducted 1999
- Search Committee for Director of Credit Programs and Assistant Dean of Continuing Education  
University of Colorado at Boulder – Fall 1998/Spring 1999
- All American Football Foundation – 35 Year Award, 1998
- Search Committee for Athletic Director, University of Colorado – Spring, 1997
- Distinguished Service Award, University of Colorado, 1996
- Jefferson County Athletic Hall of Fame – inducted 1996
- Search Committee for Dean of Continuing Education, University of Colorado – Spring, 1996
- Colorado High School Sports Hall of Fame – inducted 1993
- Board of Directors, National Football Foundation and Hall of Fame, CO Chapter – 1992 – present
- Rehabilitation Advisory Board, Mapleton Rehabilitation Center (Closed Head Injuries) – 1992 – present
- Board of Directors, University of Colorado at Boulder – 1991 – 1994
- National High School Sports Hall of Fame – inducted 1990
- Voyager Planetary Radio Astronomy Team – 1987 – present
- Orange Bowl Hall of Honor – inducted 1987
- Kansas City Star-Times all-time All-Big Eight – 1987
- NCAA Silver Anniversary Award – 1987
- NASA Group Achievement Award for Voyager Uranus Interstellar Mission – 1986
- Kodak All-America Life Achievement Award (first recipient) – 1984
- National Football Foundation College Football Hall of Fame – inducted 1984
- University of Colorado Alumni C Club Athletic Hall of Honor – inducted 1982
- Citizens Savings All-College Football Hall of Fame – inducted 1975
- Chairman, Mental Health Association of Colorado – 1973
- Colorado Sports Hall of Fame – inducted 1973
- All-Time All-Big Eight, First Team – 100<sup>th</sup> Anniversary of College Football – 1969

- Danforth Scholar - 1965 – 1970
- Rhodes Scholar - 1963 – 1965
- Woodrow Wilson Scholar, 1963
- NCAA Scholar-Athlete – 1961
- UPI Lineman of the Year – 1961
- Team Captain – 1961
- All-American Lineman – 1960 - 1961
- All Big Eight Lineman – 1959 - 1961
- State Heavyweight Wrestling Champion – 1957 – 1958
- All State Halfback – 1956 - 1957