

## VITA

January 4, 2023

**Dr. James Patton Deavor (Jim)**  
*Professor of Chemistry & Biochemistry*

Department of Chemistry & Biochemistry  
College of Charleston  
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**Education:** B.S., Mercer University, Macon, GA, June 1978  
Ph.D., University of South Carolina-Columbia, May 1983

**Dissertation Title/Research Director:** "A Study of Electron Density and Magnetic Confinement in the Microwave-Induced Plasma" / Dr. Scott R. Goode

**Post-Doctoral Experience/Advisor:** University of Florida, summer 1987, summer 1988, August 1991- April, 1992/ Dr. James D. Winefordner

### Awards and Honors:

Distinguished Service Award, College of Charleston, 2022  
Gordon E. Jones Distinguished Achievement Award, School of Sciences & Mathematics, 2019  
ExCEL (Excellence in Collegiate Education and Leadership) Harry M. Lightsey Humanitarian Award, 2016  
ExCEL (Excellence in Collegiate Education and Leadership) Faculty of the Year Award for the School of Sciences and Mathematics, College of Charleston, 2007  
Distinguished Service Award of the South Carolina Section of the American Chemical Society, 2005  
Distinguished Achievement Award, School of Sciences and Mathematics, 2002  
Distinguished Advising Award, College of Charleston, 2002  
Alpha Kappa Gamma Award from Omicron Delta Kappa, College of Charleston, 1990  
Distinguished Teaching Award, College of Charleston, 1991  
Inducted into Phi Kappa Phi Honor Society, College of Charleston, 1991  
Inducted into Omicron Delta Kappa Honor Society, College of Charleston, 1987  
Joseph Bouknight Chemistry Teaching Award, University of South Carolina-Columbia, 1983  
Eagle Scout, Boy Scouts of America, 1973

### Employment Record:

Professor, Department of Chemistry, College of Charleston, August 1997- present  
Interim Chair, Department of Chemistry & Biochemistry, College of Charleston, July 1, 2020-June 30, 2022  
Associate Dean, School of Sciences and Mathematics, College of Charleston, November 2010 – June 2020  
Interim Dean, School of Sciences and Mathematics, College of Charleston, August 2009-October 2010  
Chair, Department of Chemistry & Biochemistry, College of Charleston, August 2002-August 2009  
Interim Dean, School of Sciences and Mathematics, College of Charleston, August 2001-August 2002  
Chair, Department of Chemistry & Biochemistry, College of Charleston, August 1995- August 2001  
Associate Professor, Department of Chemistry, College of Charleston, July 1990-August 1997  
Visiting Scientist, University of Florida, August 1991-April 1992  
Assistant Professor, Department of Chemistry, College of Charleston, August 1983 - June 1990  
Instructor, The Governor's School of South Carolina, summers of 1989, 1990, 1991  
Post-doctoral Fellow, University of Florida, summer 1987, summer 1988  
Graduate Assistant, University of South Carolina-Columbia, August 1978-May 1983

Laboratory Technician, Olin Corp., Pisgah Forest, NC, summer 1978

**Administrative Experience:**

Chair, Department of Chemistry and Biochemistry, College of Charleston, July 2020-present  
Associate Dean, School of Sciences and Mathematics, November 2010-June 2020  
Principal Investigator (Campus Coordinator), SC-NIH-INBRE Grant, College of Charleston, July 2008-present  
Interim Dean, School of Sciences and Mathematics, College of Charleston, July 2009-October 2010  
Chair, Department of Chemistry and Biochemistry, College of Charleston, July 2002- June2009  
Interim Dean, School of Sciences and Mathematics, College of Charleston, Aug 2001-June2002  
Chair, Department of Chemistry and Biochemistry, College of Charleston, July 1995- June 2001

**Teaching Interests:**

General Chemistry for non-majors (CHEM 101-102 and labs), Calculations in Chemistry (CHEM 103- online),  
Principles of Chemistry (CHEM 111/111L-112/112L), Introduction to Analytical Chemistry (CHEM 220/220L),  
Instrumental Methods of Analysis (CHEM 421/421L), Environmental Chemistry CHEM 422

**Research Interests:** Atomic and Molecular Spectroscopy, Chemical Education

**Professional Memberships:**

Alpha Chi Sigma Chemistry Fraternity	Member
American Chemical Society	Member
Council on Undergraduate Research	Member
Gamma Sigma Epsilon Chemistry Honor Society	Member
Phi Kappa Phi	Life Member
South Carolina Academy of Science	Life Member

**Service, Department of Chemistry and Biochemistry**

Analytical Chemistry Curriculum Committee, 1983-present	Member
Secretary, 1984-1991	
Department Freshman Seminar Committee, 1989 -1991	Member
Catalyst Award Nomination Committee, 1993-94, 1998	Chairman
Department Chair, 1995-2000	
Department Chair, 2001-2010	
Safety Committee, 2012-present	Member
Wendy Cory Mentoring Committee, 2012-2014	Member
Assessment Committee, 2013-present	Member
Jennifer Fox Mentoring Committee, 2013-2015	Member
Michael Giuliano Mentoring Committee, 2015-2016	Member
Katherine Mullaugh Mentoring Committee, 2014-present	Member

**Service, College of Charleston:**

Advisory Committee, College of Charleston Explorer Post #66, 1983-1985	Member
Official Timekeeper, College of Charleston Basketball Games, 1985-1987	
Omicron Delta Kappa, CofC Chapter, 1988-1989	Faculty Advisor
Omicron Delta Kappa, CofC Chapter, 1989-1991	Faculty Secretary
Faculty Committee on Student Affairs and Athletics, 1985-86	Member
Faculty Committee on Student Affairs and Athletics, 1986-87	Secretary
Faculty Committee on Student Affairs and Athletics, 1987-88	Chair
Faculty Committee on Graduate Education, Continuing Education, & Special Programs 1988-89	Chair
Mathematics Department Promotion and Tenure Panel, 1989-90	Member
Environmental and Ecological Studies and Management Programs Study Group, 1990-91, 1993	Member
Advising Committee, 1990-91	Member
Distinguished Teaching Award Selection Committee, 1992-93	Member
Environmental Studies Minor Steering Committee, 1993-1996	Member

School of Science and Math Distinguished Achievement Award Selection Committee, 1994	Member
Distinguished Teaching Award Selection Committee, 1994-95	Chairman
Faculty Welfare Committee, 1994-1996	Member
Faculty Welfare Committee, 1994-1995	Secretary
Faculty Welfare Committee, 2004-07	Member
Honor Society of Phi Kappa Phi, CofC Chapter, Executive Committee 1994-96	Publicity Chairman
Environmental Science Major Study Committee, 1994-97	Member
Grice Marine Biology Laboratory Planning Committee, 1995-97	Member
Department of Biology Tenure & Promotion Review Panel, 1995-96	Member
Honor Society of Phi Kappa Phi, CofC Chapter, 1996-98	President-Elect
Department of Physics & Astronomy Tenure & Promotion Review Panel, 1996, 1997	Chair
Faculty Committee on Student Affairs and Athletics 1997-98	Member
Center for Effective Teaching and Learning Steering Committee, 1997 - 1999	Member
Program, Enrollment & Human Resource Issues Work Group, Long Range Planning Committee, 1999	Member
Honor Society of Phi Kappa Phi, CofC Chapter, 1999-2001	President
Honor Society of Phi Kappa Phi, CofC Chapter, 2001-2002	Past-President
Department of Physics & Astronomy Search Committee, 1999-2000	Chair
All-College Certification Committee, 1998-2004	Member
Faculty Senator, 1999-2001	Member-at-large
Faculty By-laws Committee, 2000-2001	Member
Registrar Search Committee, 2000	Member
Long Range Planning Coordination Committee, 2001-2002	Member
Distinguished Teacher-Scholar Selection Committee, 2001	Member
Teacher Education Council, 2001-2010	Member
Provost Search Committee RFP Panel, 2001	Member
Provost Search Committee, 2001-2003	Chair
South Carolina Alliance for Minority Participation, Governing Board, 2001-2002	CofC Representative
SC EPSCoR Executive Committee, 2001-2002	Member
Academic Council, 2001-2002	Member
Hollings Marine Lab Executive Board, 2001-2002	CofC Representative
School of Education Advisory Board, 2001-2002	Member
South Carolina Sea Grant Board of Directors 2001-2002, 2009-2010	Member
Information Technology Steering Committee, 2001-2003	Member
Architect Selection Panel for New Science Facility, 2002	Member
SC Lottery Grant Initiative Writing Team, Fall 2002	Member
Non-FIPSE Dept. of Education Congressional Earmark, \$500,000, 2002-03	Principal Investigator
Distinguished Advising Award Selection Committee, 2003	Chair
School of Business & Economics Dean Search RFP Panel, 2003	Member
Environmental Health & Safety Officer Search Committee, 2004-2007	Member
<i>ad hoc</i> Planning Committee for the Chairs Retreat, 2004, 2006	Member
Teacher Education Council, 2004-2010	Member
SACS Reaffirmation Committee 2006-2007	Member
Academic Standards Committee, 2007-2008	Member
President Benson's Strategic Planning Committee, 2007-2009	Co-chair
CofC SC-INBRE Campus PI, May 2008 - present	Principal Investigator
SACS Reaffirmation Committee, 2009	Member
South Carolina Sea Grant Board of Directors 2009-2010	CofC Representative
Academic Council, 2009-10	Member
Undergraduate Research and Creative Arts SURF Program, 2009, 2011- 2014	Reviewer
SSM Scholarship Committee, 2011-present	Chair
SSM Award Selection Committee, 2011-2018	Chair
Mebane Chair Selection Committee, 2011-2018, 2022	Chair
Architect Selection Panel for Hollings Science Center Renovation, 2012	Member
SSM Dean's Assessment Committee, 2012-present	Member

SSM EH&S Work Group, 2012-present	Convener
Archaeology Steering Committee, 2013-2017	Member
STEM Education Day at Women's Basketball Game, 2013-present	Co-organizer
STEM Education Day at Women's Basketball Game, 2013-present	Presenter
Divisional Diversity Liaisons Committee, 2013-2018	Member
University of Charleston Graduate Poster Session, 2013, 2014	Judge
Honors College Associate Dean Selection Committee, 2014	Member
Construction Manager Selection Panel for Hollings Science Center Renovation, 2014	Advisory Member
Goldwater Scholarship Selection Committee, 2014, 2015, 2016, 2017, 2018, 2019	Member
Institutional Assessment Committee, 2015-2018	Co-chair
Institutional Assessment Committee, 2018-present	Member
Research & Grants Administration Search Committee for Grant Administrator, 2016	Member
SACS Reaffirmation Committee, 2016-2017	Member

2.7.1 Program Length- Primary Writer

3.13.1 Policy compliance accreditation decision of other agencies –Primary Writer

2.5 Institutional Effectiveness

3.3.1.4 Institutional Effectiveness- Research within its mission

3.13.3 Complaint Procedures

4.5 Student Complaints

SSM Electronics Technician Search Committee, 2017-18	Chair
Honor Board Appeals Panel, 2019	Member
Director of Assessment Search Committee, 2020	Chair
Director of Environmental Health & Safety Search Committee, 2019-2020	Member
Academic Standards Committee, 2007-2008, 2020-present	Member
Transfer Policy Task Force, 2021-2022	Member

### **Service, American Chemical Society, South Carolina Section**

Outstanding Student Award Committee, 1993-2018	Chair
Teacher of the Year Selection Committee, 1993-97	Member
SERMACS-2002 Organizing Committee, 1999-2002	Web Master
Executive Committee, 2005-2009	Alternate Councilor
Executive Committee, 2010-present	Secretary-Treasurer
SERMACS 2016 Organizing Committee, 2014-2017	Web Master and Assistant Treasurer

### **Other Professional Service:**

Judge, Low Country Science Fair, numerous times	
Judge, Local Science Fairs, numerous times	
Presenter, Chemistry Magic Show, Low Country Science Fair, numerous times	
Chemistry Merit Badge Counselor, Boy Scouts of America	
Numerous presentations to local elementary and high schools	
Alpha Chi Sigma National Boy Scout Activities Committee, 1990-1991	Member
South Carolina Association of Chemistry Teachers	
Newsletter and Web Page Editor, 1996-2004	
Instructor, World of Wonder Science Program for Children, 1985	
National Budget Committee, Society for Applied Spectroscopy, 1988-1990	Member
Reviewer for the <i>Journal of Chemical Education</i> , numerous times	
Reviewer for the <i>Chemical Educator</i> , numerous times	
Consultant, Beaufort County Academic Challenge, 1998, 1999	
Board of Directors, Orange Grove Elementary Charter School, October 2005 –June 2007	Member
Board of Directors, Orange Grove Elementary Charter School, July 2007 -June2008	Chair
Board of Directors, Orange Grove Elementary Charter School, July 2009 - June 2010	Member
Board of Directors, Orange Grove Elementary Charter School, July 2010 - June 2011	Chair
Lowcountry STEM Festival, 2019, 2020	Presenter

### Grants and Fellowships Awarded:

National Science Foundation, ILI, March 1990,	\$ 26,616
National Institutes of Health P20 RR-016461 from SC-INBRE, May 1, 2008-April 30, 2009	\$412,950
National Institutes of Health P20 RR-016461 from SC-INBRE, May 1, 2009 - April 30, 2010	\$423,801
National Institutes of Health P20 RR-016461 from SC-INBRE, September 1, 2010-June 30, 2011	\$140,058
National Institutes of Health P20 GM1034999 from SC-INBRE, July 1, 2011-June 30, 2012	\$140,133
National Institutes of Health P20 GM1034999 from SC-INBRE, July 1, 2012-June 30, 2013	\$129,286
National Institutes of Health P20 GM1034999 from SC-INBRE, July 1, 2013-June 30, 2014	\$128,658
National Institutes of Health P20 GM1034999 from SC-INBRE, July 1, 2014-June 30, 2015	\$132,516
National Institutes of Health P20 GM1034999 from SC-INBRE, July 1, 2015-June 30, 2016	\$146,622
National Institutes of Health P20 GM1034999 from SC-INBRE, July 1, 2016-June 30, 2017	\$146,622
National Institutes of Health P20 GM1034999 from SC-INBRE, July 1, 2017-June 30, 2018	\$146,622
National Institutes of Health P20 GM1034999 from SC-INBRE, July 1, 2018-June 30, 2019	\$146,622
National Institutes of Health P20 GM1034999 from SC-INBRE, July 1, 2019-June 30, 2020	\$146,622
National Institutes of Health P20 GM1034999 from SC-INBRE, September 1, 2020-August 31, 2021	\$147,860
Total	\$2,414,988

### Professional Publications:

1. "Determination of Electron Density in an Atomic Plasma by Least-Squares Fit to the Stark Profile", S.R. Goode and J.P. Deavor, *Spectrochim. Acta*, **39B**, 547 (1984).
2. "Influence of Pressure on the Properties of a Microwave-Induced Plasma", S.R. Goode, N.P. Buddin, B. Chambers, K.W. Baughman, and J.P. Deavor, *Spectrochim. Acta*, **40B**, **317** (1985).
3. "Simplex Optimization: A Computer Program for Instrumental Analysis", J.P. Deavor, *J. Chem. Ed.*, **64**, 792 (1987).
4. "Lecture Demonstrations for Organic/Biochemistry Allied Health Courses", J.P. Deavor, *J. Chem. Ed.*, **65**, 622 (1988).
5. "Solution Nebulization of Aqueous Samples into the Tubular Electrode Capacitively Coupled Microwave Plasma", B.M. Patel, J.P. Deavor, and J.D. Winefordner, *Talanta*, **35**, 641 (1988).
6. "Fiber Optic Probe of a Flame for Copper Number Density Determination", J.P. Deavor, J.B. Womack, B.W. Smith, and J.D. Winefordner, *Appl. Spectrosc.*, **43**, 165 (1989).
7. "A Governor's School Course Emphasizing Chemical Reactions", J.P. Deavor, *J. Chem. Educ.*, **67**, 669 (1990).
8. "Chemistry: The Ultimate Liberal Art", J.P. Deavor, *J. Chem. Educ.*, **67**, 881 (1990).
9. "The Chemistry Minor", J.P. Deavor, *J. Chem. Educ.*, **67**, 847 (1990).
10. "The Freshman Seminar", J.P. Deavor and H. Donato, Jr., *J. Chem. Educ.*, **67**, 953 (1990).
11. "Environmental Education within Undergraduate Chemistry Departments in the United States", J.P. Deavor, *Environ. Sci. Tech.*, **26**, 34 (1992).
12. "Chemistry Merit Badge", J.P. Deavor, G.L. Asleson, E.M. Martin, and C. Metz, *J. Chem. Educ.*, **69**, 131 (1992).
13. "Equal Credit for Equal Hours", J.P. Deavor, *J. Chem. Educ.*, **69**, 310 (1992).
14. "Atomic Emission Spectrometry of Microsamples in a Glow Discharge", E.B. Becerra, J. Deavor, and J.D. Winefordner, *Spectrosc. Lett.*, **25**, 1257, (1992).
15. "Laser Excited Atomic Fluorescence Determination of Sub-Microliter Aqueous Samples of Lead Using A Planar Cathode Glow Discharge", J.P. Deavor, E. Becerra, B.W. Smith, and J.D. Winefordner, *Can. J. Appl. Spectrosc.*, **38**, 7 (1993).
16. "Chemistry Merit Badge Revision", J.P. Deavor, C. Metz, J. King, and J. Barton, *J. Chem. Educ.*, (1994).
17. "Role Playing in the Quantitative Analysis Lab", J.P. Deavor, *J. Chem. Educ.*, **71**, 980 (1994).
18. "Chemistry Learning Centers for Elementary School Libraries", J.P. Deavor and J.W. Deavor, *J. Chem. Educ.*, **72**, 798 (1995).
19. "Chemical Jeopardy", J.P. Deavor, *J. Chem. Educ.*, **73**, 430 (1996).
20. "Using the World Wide Web as a Tool in Administering Academic Departments", *The Department Chair*, J.P. Deavor, **7**(2), 11 (1996).

21. "Who Wants to be a (Chemical) Millionaire?" J.P. Deavor, *J. Chem. Educ.*, **78**,467 (2001).

**Professional Presentations:**

1. "Constriction of a Microwave-Induced Plasma Using A Magnetic Theta Pinch", J.P. Deavor, S.R. Goode, and D.T. Pipes, FACSS, Philadelphia, PA, September 1981.
2. "Enhancement of Emission in the Microwave-Induced Plasma", J.P. Deavor and S.R. Goode, FACCS, Philadelphia, PA, September 1982.
3. "A Comparison of Techniques Used to Determine Electron Density in Plasmas, J.P. Deavor and S.R. Goode, SERMACS, Charlotte, NC, November 1983.
4. "Constriction of a Microwave-Induced Plasma by a Magnetic Theta Pinch", S.R. Goode, R. Creech, and J.P. Deavor, FACSS, Philadelphia, PA, September 1983.
5. "The Influence of Pressure on the Fundamental Properties of a Microwave-Induced Plasma", S.R. Goode, N.P. Buddin, B. Chambers, K.W. Baughman, and J.P. Deavor, 1984 Winter Conference on Plasma Spectrochemistry, San Diego, CA, January 1984.
6. "The Determination of Electron Density in the Microwave-Induced Plasma", South Carolina Academy of Science, Charleston, SC, March 1984.
7. "A Study of Interferences of Volatile Metals in the Graphite Furnace Atomizer", J.P. Deavor, Southeast-Southwest Regional Meeting of the American Chemical Society, Memphis, TN, October 1985.
8. "A Study of Cadmium and Lead Using the Graphite Furnace Atomizer", A.T. Crowe and J.P. Deavor, South Carolina Academy of Science, Clemson, SC, April, 1986.
9. "Trace Metals in Charleston, SC Waters by Graphite Furnace Atomic Absorption", A.T. Crowe and J.P. Deavor, FACSS, St. Louis, MO, September 1986.
10. "Evaluation of a Tubular Torch Capacitively Coupled Microwave Plasma Using Solution Nebulization", J.P. Deavor, B.M. Patel, and J.D. Winefordner, Pittsburgh Conference, New Orleans, LA, February 1988.
11. "Solution Nebulization to the Capacitively Coupled Microwave Plasma", J.P. Deavor, B.M. Patel, and J.D. Winefordner, South Carolina Academy of Science, Orangeburg, SC, April 1988.
12. "Copper Number Density Determinations in a Flame Using a Fiber Optic Probe", J.P. Deavor and J.D. Winefordner, College of Charleston Poster Session, Charleston, SC, April 1989 .
13. "Copper Number Density Determinations in a Flame Using a Fiber Optic Probe", J.P. Deavor, J.B. Womack, B.W. Smith, and J.D. Winefordner, South Carolina Academy of Science, Columbia, SC, April 1989 .
14. "World of Wonder: The Chemistry of Metals", SC Academy of Science, Charleston, SC, March 1990.
15. "World of Wonder: The Chemistry of Metals", 19th Biennial Conference on Chemical Education, Atlanta, GA, August 1990.
16. "Use of a He-Ne Laser to Measure Liquid Diffusion Coefficients" June Avinger and James Deavor, College of Charleston Poster Session, April 19, 1991.
17. "Fluorescence Measurements with a Nitrogen-Dye Laser System, Ken Barrett, Whitney Minnick, and James Deavor, College of Charleston Poster Session, April 19, 1991.
18. "Laser Excited Atomic Fluorescence Determination of Sub-Microliter Aqueous Samples Using a Hot Planar Cathode Glow Discharge", J.P. Deavor and J.D. Winefordner, College of Charleston Poster Session, April 9, 1993.
19. "The Catalytic Decomposition of Tartaric Acid by Hydrogen Peroxide:, P. Forney and J.P. Deavor, Sixth Annual College of Charleston Poster Session, April 8, 1994.
20. "Cooperative Learning in the Quantitative Analysis Lab Using Role Playing:, SEAAC, Greensboro, NC September 22, 1995.
21. "Determination of Gasoline Additives By FTIR, Amy McCay and James P. Deavor, Seventh Annual College of Charleston Poster Session, April 12, 1995.
22. "Using the Web as a Tool in Teaching and Advising Students", National Chemical Information Symposium, Charleston, SC, July 15, 1996.
23. "A Tour of Analytical Chemistry on the World Wide Web", SEAAC, Athens, GA, October 25, 1996.
24. "Surfin' the Chemistry Net", SCACT, Charleston, SC, March 22, 1997.
25. "SC-INBRE at the College of Charleston", Greenville, SC, January 16, 2009
26. "South Carolina Section Centennial, 1914-2014", SERMACS 2015, Nashville, TN, October 2014