

## John R. Goodwin

410-B North Avenue East  
Bryan, Texas 77801  
(979) 492-5523

**Objective:** Teaching or research position in mathematics or in the natural sciences

### Education:

Doctor of Philosophy Degree (in Chemistry)  
Texas A&M University, College Station, Texas, 2012  
Emphasis: Nuclear physics  
Dissertation: Can Environmental Factors Affect Half-Life in  $\beta$ -decay: An Analysis

Master of Science Degree in Accounting  
Texas A&M University, Commerce, Texas, Expected 2016  
Emphases: professional accounting, tax accounting

Bachelor of Arts Degree in Chemistry  
The University of Houston (Main Campus), Houston, Texas, 2003  
*Summa cum Laude*  
Graduated with full membership in the Honors College  
Dean's List (numerous occasions)

### Honors

*Tau Beta Pi* (the engineering equivalent of *Phi Beta Kappa*) (U.H. Main Campus)  
*Beta Gamma Sigma* (the business equivalent of *Phi Beta Kappa*) (TAMU-Commerce)  
*Phi Kappa Phi* national honor society (Univ. of Texas, Austin)  
*Phi Lambda Upsilon* national chem. honor soc. (Texas A&M Univ., College Station)  
*Omega Chi Epsilon* national chemical engineering honor society (U.H. Main Campus)  
*Sigma Alpha Pi* national leadership honor society (Texas A&M Univ., Commerce)  
*Phi Eta Sigma* national honor society (for freshmen) (Univ. of Texas, Austin)  
*Alpha Epsilon Delta* national honor society for pre-meds (Univ. of Texas, Austin)  
*Golden Key* national honor society (Univ. of Houston, Main Campus)  
*National Collegiate Scholars* national honor society (Univ. Houston, Main Campus)  
*National Dean's List* 1999-2000, 2000-2001 (Univ. of Houston, Main Campus)

### Scholarships

Research and development scholarship, \$4,000 *per annum*, Department of Engineering, University of Houston, 2000-2001, 2001-2002, 2002-2003  
Numerous other grants and scholarships

### Recent Employment Experience

Professor, Chemistry 1411/1412 – General Chemistry I & II (lecture and lab), Fall 2015 and Spring 2016, Houston Community College, Houston, Texas;  
Tutor, chemistry (all courses) and mathematics (all courses), HCC Tutoring Center, Houston, Texas, Spring 2016.

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STEM faculty researcher, STEM joint program HCC & St. Thomas University, 2015-2016; investigating the thermodynamics of the rotational detonation engine for the U.S. Navy

Professor, Chemistry 1411/1412 – General Chemistry I & II (lecture and lab), Fall 2014 through Summer 2015, Houston Community College, Houston, Texas

Professor, Chemistry 1411 – General Chemistry I (lecture and lab), Fall 2012 and Spring 2013, Blinn College, Bryan, Texas campus

Research Assistant, Texas A&M University, the Cyclotron Institute, Spring 2005 through Summer 2012

Instructor, General Chemistry Laboratory, Texas A&M University, Fall 2004 & Spring 2005 (responsible for the laboratory portion of the General Chemistry course)

Instructor, General Chemistry Laboratory, The University of Houston, Fall 2003 (responsible for the laboratory portion of the General Chemistry course)

### **Current Position**

My most recent position is as chemistry professor at Houston Community College in Houston, Texas. I teach General Chemistry I and II, both the lecture and laboratory portions of the course, and I tutor mathematics (all courses) and chemistry (all courses) at the HCC Tutoring Center. I am also involved as a faculty researcher for the HCC/St. Thomas University joint STEM program.

### **Military Experience**

Veteran, U.S. Army, four years, decorated five times; honorably discharged

### **Programming**

Proficient in Microsoft Excel, Sage mathematical software, Mathcad mathematical software, Maestro (a spectrum analysis software), and Radware (a Gf3 fit program for peak analysis); moderate proficiency in the C- and Fortran-programming languages and in ROOT (a full-spectrum analytic program), good verbal and written communicator, 60 wpm typing, knowledgeable in Windows operating system

### **Publications**

1. J. R. Goodwin, N. Nica, V. E. Iacob, A. Dibilidad, and J. C. Hardy, Measurement of the half-life of  $^{198}\text{Au}$  in a nonmetal: High-precision measurement shows no host-material dependence. *Phys. Rev. C* 2010; 82:044320.
2. J. R. Goodwin, V. V. Golovko, V. E. Iacob, and J. C. Hardy, Half-life of the electron-capture decay of  $^{97}\text{Ru}$ : Precision measurement shows no temperature dependence. *Phys. Rev. C* 2009; 80:045501.
3. J. R. Goodwin, V. V. Golovko, V. E. Iacob, and J. C. Hardy, The half-life of  $^{198}\text{Au}$ : High-precision measurement shows no temperature dependence. *Eur. Phys. J. A* 2007; 34:271-274.

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4. J. R. Goodwin, "Can Environmental Factors Affect Half-Life in  $\beta$ -decay: An Analysis" (Ph.D. Dissertation, Texas A&M University, College Station 2012).
5. J. C. Hardy, J. R. Goodwin, V. V. Golovko, V. E. Iacob, Tests of nuclear half-lives as a function of the host medium and temperature: Refutation of recent claims. *Appl. Radiat. Isot.* 2010; 68:1550-1554.
6. J. C. Hardy, J. R. Goodwin and V. E. Iacob, Does radioactive half-life depend on the Earth-Sun distance? *Appl. Radiat. Isot.* 2012; 70:1931.
7. V. E. Iacob, J. C. Hardy, L. Chen, V. V. Golovko, J. Goodwin, V. Horvat, N. Nica, L. Trache, and R. E. Tribble, Precise half-life measurement of the superallowed  $\beta^+$  emitter  $^{26}\text{Si}$ . *Phys. Rev. C* 2010; 82:035502.
8. N. Nica, J. C. Hardy, V. E. Iacob, J. Goodwin, C. Balonek, M. Hernberg, and J. Nolan, Further test of internal-conversion theory with a measurement in  $^{197}\text{Pt}$ . *Phys. Rev. C* 2009; 80:064314.
9. V. E. Iacob, J. C. Hardy, V. Golovko, J. Goodwin, N. Nica, L. Trache, and R. E. Tribble, Precise half-life measurement of the superallowed  $\beta^+$  emitter  $^{10}\text{C}$ . *Phys. Rev. C* 2008; 77:045501.
10. V. E. Iacob, J. C. Hardy, C. A. Gagliardi, J. Goodwin, N. Nica, G. Tabacaru, L. Trache, R. E. Tribble, Y. Zhai, and I. S. Towner, Branching ratios for the  $\beta$  decay of  $^{21}\text{Na}$ . *Phys. Rev. C* 2006; 74:015501.

## Presentations

1. J. R. Goodwin, "Do radioactive half-lives depend on the Earth-Sun distance?" 2010 Fall Meeting of the APS Division of Nuclear Physics; November 5, 2010, Santa Fe, New Mexico.