

## VITA

Bobby L. Wilson, Ph.D.  
L. Lloyd Woods Distinguished Professor of Chemistry and  
Shell Oil Endowed Chaired Professor of Environmental Toxicology  
Texas Southern University  
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### EDUCATIONAL PREPARATION

Michigan State University, East Lansing, MI	Chemistry Ph.D.	1976
Southern University, Baton Rouge, LA	Chemistry MS	1972
Alabama State University, Montgomery, AL	Chemistry BS	1966
R.E. Hunts High School, Columbus, MS	College Prep	1962

### APPOINTMENTS

Texas Southern University, Houston, TX	2/2008-Present, L. Lloyd Woods Distinguished Professor of Chemistry and Shell Oil Endowed Chaired Professor of Environmental Toxicology
Texas Southern University, Houston, TX	4/2006-02/2008, Acting President and/or Provost, L. Lloyd Woods Distinguished Professor of Chemistry and Shell Oil Endowed Chaired Professor of Environmental Toxicology
Texas Southern University, Houston, TX	8/2004-4/2006 Provost, L. Lloyd Woods Distinguished Professor of Chemistry and Shell Oil Endowed Chaired Professor of Environmental Toxicology
Texas Southern University, Houston, TX	9/2001-8/2004, Provost and L. Lloyd Woods Distinguished of Professor of Chemistry
Texas Southern University, Houston, TX	10/1999-9/2001, Provost and Professor of Chemistry
Texas Southern University, Houston, TX	9/1997-10/1999 Professor and Chair of Chemistry
National Science Foundation, Washington, D.C.	2/1996-9/1997, Program Director
Texas Southern University, Houston, TX	9/1995-2/1996, Professor and Chair of Chemistry

Texas Southern University, Houston, TX	1/1994-9/1995	Professor of Chemistry
Texas Southern University, Houston, TX	9/1993-1/1994,	Provost and Professor of Chemistry
Texas Southern University, Houston, TX	2/1993-9/1993,	Acting President, Provost and Professor of Chemistry
Texas Southern University, Houston, TX	1/1992-2/1993,	Provost and Professor of Chemistry
Texas Southern University, Houston, TX	6/1990-1/1992,	Vice President for Academic Affairs and Professor of Chemistry
Texas Southern University, Houston, TX	9/1987-9/1989,	Professor and Head of Chemistry
Texas Southern University, Houston, TX	9/1986-9/1987,	Associate Dean, College of Arts and Sciences and Professor of Chemistry
Texas Southern University, Houston, TX	9/1985-9/1986,	Professor of Chemistry
Texas Southern University, Houston, TX	9/1983-9/1985,	Associate Professor of Chemistry
Exxon Res. & Engineering, Baytown, TX	6/1982-9/1983,	Visiting Research Professor
Texas Southern University, Houston, TX	9/1980-9/1982,	Associate Professor of Chemistry
Texas Southern University, Houston, TX	9/1976-9/1980,	Assistant Professor of Chemistry
Michigan State University, East Lansing, MI	9/1974-6/1976,	Director of Tutorial Assistance Program in Chemistry
Michigan State University, East Lansing, MI	9/1971-6/1974,	Graduate Teaching Assistant
Booker T. Washington High School, Montgomery, AL	9/1966-6/1970,	Science Teacher
Jefferson Davis High School, Montgomery, AL	9/1970-6/1971,	Science Teacher

**CONSULTANCIES:**

Alabama State University, Montgomery, Alabama  
Cairo University, Cairo, Egypt  
Exxon Research and Engineering Company, Baytown, Texas  
Houston Community College, Houston, Texas  
Prairie View A&M University, Prairie View, Texas  
Educational Testing Service, Princeton, New Jersey  
Texas Education Association, Austin, Texas  
Basic Technologies International, Bethesda, Maryland  
Sam Houston State University, Huntsville, Texas

**MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS:**

American Chemical Society (ACS)

National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE)  
Sigma XI, The Scientific Research Society  
Beta Kappa Chi Honor Society  
African Scientific Institute, 2006  
Texas Academy of Science  
Texas Association of College Teachers  
The American Institute of Chemists  
American Association for the Advancement of Science  
National Museum of African American History and Culture, Charter Member

**HONORS:**

Michigan State University Department of Chemistry Excellence-in-Teaching Citation, 1975  
Briargate Civic Club Distinguished Service Award, 1978  
Briargate Community Citizen of the Year Award, 1980  
Briargate Civic Club Distinguished Service Award, 1980  
Marquis Who's Who in Frontier Science and Technology, 1982  
Kappa Alpha Psi Distinguished Service Award, 1982  
Kappa Alpha Psi Achievement Award, 1983  
Alpha Kappa Alpha Sorority Community Service Award, 1983  
National Organization of Black Chemists and Chemical Engineers Appreciation Award, 1984  
Houston Alumni Chapter of Kappa Alpha Psi Fraternity 1984 Spotlight Award  
Who's Who in Texas, 1985  
National Organization of Black Chemists and Chemical Engineers Outstanding Teacher Award, 1985  
Ruby W. Hilliard Memorial Professional Achievement Award, 1985  
Who's Who Among Black Americans, 1987  
"Albert Einstein" World Award of Science Diploma, 1987  
Fellow, The American Institute of Chemists, 1988  
Texas Southern University Researcher of the Year, 1988  
Kappa Alpha Psi Distinguished Service Award, 1988  
Kappa Alpha Psi Southwest Province Graduate Brother of the Year Award, 1988  
First White House Initiative Faculty Award for Excellence in Science and Technology, 1988  
The Audrey Logan Citizenship Award, 1988  
Texas Southern University Program Council's "Showcase" of Black Talent Award, 1989  
Texas Southern University's College of Arts & Sciences Outstanding Teacher Award, 1989  
Texas Southern University's McCleary Teacher of the Year Award, 1989  
Briarchase Baptist Church Outstanding Black Achiever Award, 1990  
Fort Bend County Commissioner's Distinguished Service Award, 1989  
Houston's Mystic Knights, Man of the Year, 1990  
Fellow, Texas Academy of Science, 1991  
Sigma Gamma Rho Sorority, Men on the Move in the 90's Award, 1992  
Texas Justice Court Certificate of Special Recognition, 1992  
Texas Court of Criminal Appeals Certificate of Appreciation, 1992  
Who's Who in American Education, 1992  
Who's Who Worldwide, 1992

National Organization for the Professional Advancement of Black Chemists and Chemical Engineers Appreciation Award, 1993  
National Technical Association Scientist of the Year Award, 1993  
Texas Southern University's Ocean of Soul "Back in Stride" Award, 1993  
Gulf Coast Chapter of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers Appreciation Award, 1994  
Listed Among American Men and Women of Science, 1994  
Briarchase Baptist Church Man of the Year Award, 1996  
Alabama State University Alumni of Distinction Award, 1997  
Listed Among American Men and Women of Science, 1997  
Houston Alumni Chapter of Kappa Alpha Psi Fraternity "Cleveland B. Davis" Kappa Achiever Award, 1999  
Texas Southern University Student Support Services Award, 2001  
Texas Southern University Student Support Services Award, 2002  
University of Houston Downtown Salute, 2002  
Houston League of Business and Professional Women Ombudsmen Men of Valor and Achievement Award, 2002  
Kappa Alpha Psi, Laurel Wreath Recipient, 2005  
Fellow, African Scientific Institute, 2006  
Texas Southern University, Missouri City Links, STEM-ulating College for a Day Award, 2009  
Minority Access Mentor Award, 2009  
Texas Southern University, Missouri City Links, STEM-ulating College for a Day Award, 2010  
Texas Southern University, College of Science and Technology, Leadership Award, 2011  
Texas Southern University, Missouri City Links, STEM-ulating College for a Day Award, 2011  
Fellow, American Chemical Society, Since 2011  
Texas Southern University, College of Science and Technology, Leadership Award, 2011  
Texas Southern University, Missouri City Links, STEM-ulating College for a Day Award, 2011  
American Association for the Advancement of Science (AAAS) Mentor Award for Lifetime Achievement, 2011  
Michigan State University's College of Natural Science, Outstanding Alumni Award, 2012  
College of Science and Technology Undergraduate Advisor/Mentoring Award, 2012  
Texas Southern University Presidential Achievement Medal Award, 2012  
Texas Southern University, College of Science and Technology, Distinguished Service Award, 2013  
Texas Southern University, University Distinguished Service Award, 2013  
BEYA STEM Black Engineer Promotion of Education Award, 2013

**LANGUAGE ABILITIES:**

Good reading knowledge of German

**PUBLICATIONS:**

1. Wilson, B.L. and Hamilton, J.B., ESR-Study of Eight-Coordinate Niobium (IV) Complexes, *Inorg. Nucl. Chem. Let.* 12, 59-63 (1976).
2. Wilson, B.L., The Synthesis of Some Dihydrobis(pyrazolyl)borate Complexes of Zirconium (IV), *TSU Faculty Research Journal*, 2, 73-79 (1979).

3. Asslani, S., Rahbarnoohi, R., and Wilson, B.L., Tetrakis(pyrazolyl)borate Complexes of Zirconium(IV), *Inorg. Nucl. Chem. Lett.*, 15, 59-64 (1979).
4. Wilson, B.L. and Malekasa, S., The Synthesis and Characterization of Tetrakis[tetrakis(pyrazolyl)borate]Titanium(IV), *Inorg. Nucl. Chem. Lett.*, 16, 557-562 (1980).
5. Wilson, B.L., Schwarzer, R.R., Chukwuenye, C.O., and Cyrous, J., The Determination of Sulfide in the Aqueous Environment, *Microchem. J.*, 26, 402-410 (1981).
6. Wilson, B.L., Schwarzer, R.R., and Chukwuenye, C.O., A Field Electrode Method for the Determination of Sulfide, *Microchem. J.*, 27, 558-563 (1982).
7. Singhal, G.H., Colle, K.S., and Wilson, B.L., Organic-Soluble Liquefaction Catalysts, BARD/CL Interaction Meeting, (1982).
8. Singhal, G.H., Colle, K.S., Edelson, E.H., Wilson, B.L., and Dao, L.H., New Method for Solubilizing and Dispersing Catalysts Widens Range of Metals Showing Activity as Coal Liquefaction Catalysts, Petroleum Synthetic Fuels Long Range Research Meeting (1983).
9. Ogugbuaja, V.O., Schwarzer, R.R., and Wilson, B.L., The Analysis of Aqueous Sediments for Heavy Metals, *J. Environ. Sci. Health*, A19(8), 911-924 (1984).
10. Wilson, B.L., Schwarzer, R.R., and Mafoti, R., Evaluation and Use of the Lead Electrode for Sulfate Determinations in Lake Samples, *Microchem. J.*, 29, 74-80 (1984).
11. Gaffare, N.G. and Wilson, B.L., Lead Monitoring at a Stationary Emission Source by the Ion-Selective Electrode Method, Proceedings of the 11th Annual Meeting of the National Black Chemists and Chemical Engineers, 249-267 (1984).
12. Reid, D.K., Addo, F.I., and Wilson, B.L., The Preparation of Some Poly(pyrazolyl)borate Complexes of Hafnium(IV), Proceedings of the 11th Annual Meeting of the National Black Chemists and Chemical Engineers, 206-224 (1984).
13. Wilson, B.L. and Gaffare, N.G., The Determination of Lead in Water and Sediment Samples Using a Lead Ion-Selective Electrode, *Microchem. J.*, 34, 277-283 (1986).
14. Wilson, B.L., Schwarzer, R.R., and Etonyeaku, N., The Evaluation of Heavy Metals (Chromium, Nickel and Cobalt) in the Aqueous Sediment Surrounding a Coal Burning Generating Plant, *J. Environ. Sci. Health*, A21(8), 791-808 (1986).
15. Wilson, B.L., Liquefaction Process Improving, The Oak Ridger, Oak Ridge, TN, P. 18E, (1987).
16. Wilson, B.L., Charles, A., and Jackson, K., Soluble Cobalt(II) Complex as Catalysts for Direct Coal Liquefaction, *Fuel*, 67, 437-438 (1988).
17. Saleh, M.A., Saleh, M.A., Fouda, M.M., Saleh, M.A., Lattif, M.S.A., and Wilson, B.L., Inorganic Pollution of the Man-Made Lakes of Wadi El-Raiyan and its Impact on Aquiculture and Wildlife of the Surrounding Egyptian Desert, *Arch. Environ. Contam. Toxicol.*, 17, 391-403 (1988).
18. Wilson, B.L., Smith, L., and Wilson, M.F., The Preparation and Study of Titanium, Zirconium, and Hafnium Complexes, NASA-HBCU Space Science and Engineering Research Forum, Huntsville, AL, (1989).
19. Wilson, B.L. and Saleh, M.A., A Physical and Chemical Analysis of Egypt's Wadi El Raiyan Man Made Lakes, *J. Environ. Sci. Health*, A25 (7), 775-784 (1990).
20. Wilson, B.L. and Mitchell, D.L., Trace Metal Study of Sediment Samples Near A Coal-Fired Electrical Generating Plant, *J. Environ. Sci. Health*, A26(4), 493-509 (1991).
21. Saleh, M.A. and Wilson, B.L., Comparative Molecular Field Analysis (CoMFA) of Polychlorinated Environmental Pollutants: A Molecular Modeling for Prediction of Capillary

- Gas Chromatography Retention Time of Complex Mixtures, Proceedings of the 1991 Western and Simulation Multi-Conferences, The Society for Computer Simulation, 53-57 (1991).
22. Wilkerson, D.F., Arya, S., and Wilson, B.L., Investigation of Radionuclides in the Aqueous Sediment Environment Surrounding a Coal Burning Power Plant, *J. Environ. Sci. Health*, A28(5), 1005-1015 (1993).
  23. Green, C. D. and Wilson, B.L., Preparation, Observation, and Evaluation of  $Zr[S_2CN(C_4H_9)_2]_4$  as a Coal Conversion Catalyst, Proceedings of the 22nd Annual Meeting of the National Black Chemists and Chemical Engineers, 127-133 (1995).
  24. Terrell, L. R. and Wilson, B.L., Soluble Zirconium(IV) Complex as a Catalyst for Direct Coal Liquefaction, Proceedings of the 22nd Annual Meeting of the National Black Chemists and Chemical Engineers, 167-175 (1995).
  25. Wilson, B. and Chen, G., Evaluation of a Zirconyl Dihydrobis(pyrazolyl)borate Complex as a Catalyst for Direct Coal Liquefaction, Proceedings of the Third Annual Historically Black Colleges and Universities/Private Sector Energy Research and Development Technology Transfer Symposium, U. S. Department of Energy, Atlanta, Georgia, 14-26 (1995).
  26. Wilson, B., The Synthesis and Characterization of Dibenzo-18-Crown-6( $ZrCl_4$ )<sub>2</sub>, *NOBCCChE News Magazine*, Vol. 26, No. 3, pp 12-18 (1996).
  27. Saleh, M.A. and Wilson, B.L., Analysis of Metal Pollutants in the Houston Ship Channel by Inductively Coupled Plasma/Mass Spectrometry, *Ecotoxicology and Environmental Safety*, 44, 113-117 (1999).
  28. Wilson, M., Obot, C., Wilson, B., and Saleh, M., Chemical Analyses of Petroleum Based and Synthetic Oils After Use in Domestic Automobiles, *NOBCCChE News Magazine*, Vol. 29, No. 2, pp 19-25 (1999).
  29. Saleh, M.A., Ewane, E., and Wilson, B.L., "Monitoring the Houston Ship Channel for Inorganic Pollutants by Ion Selective Electrodes, Ion Chromatography and Inductively Coupled Plasma Spectroscopy," *Chemosphere*, 39(13), 2357-2364 (1999).
  30. Saleh, M.A. and Wilson, B.L., "Analysis of Metal Pollutants in the Houston Ship Channel by Inductively Coupled Plasma/Mass Spectrometry," *Ecotoxicology and Environmental Safety*, A44, 113-117 (1999).
  31. Saleh, M.A., Ewane, E., Jones, J., and Wilson, B.L., "Monitoring Wadi El Raiyan Lakes of the Egyptian Desert for Inorganic Pollutants by Ion-Selective Electrodes, Ion Chromatography and Inductively Coupled Plasma Spectroscopy," *Ecotoxicology and Environmental Safety*, B45 360-316 (2000).
  32. Robinson, B. and Wilson, B.L., "An Investigation of Trace Elements in the Aqueous Environment Near A Coal-fired Power Generation Plant," *Journal of Environmental Science and Health*, A35, 661-670 (2000).
  33. Saleh, M.A., Ewane, E., Jones, J., and Wilson, B.L., "Chemical Evaluation of Commercial Bottled Drinking Water from Egypt," *J. of Food Comp. And Anal.*, 14, 127-152 (2001).
  34. Denkins, P., Badhwar, G., Obot, V., Wilson, B., and Jejelowo, O., "Radiation Transport Modeling and Assessment to Better Predict Radiation Exposure, Dose, and Toxicological Effects to Human Organs on Long Duration Space Flights," *Acta Astronautica*, Vol. 49, No. 3-10, pp. 313-319 (2001).
  35. Saleh, M.A., Jones, J., and Wilson, B.L., "Environmental Assessment of Wadi El-Raiyan in the Egyptian Sahara Desert," *Texas Southern University Research Journal*, 6 (1), 80-97 (2003)

36. Khan, N.N. and Wilson, B.L., "An Environmental Assessment of Mold Concentrations & Mycotoxin Exposure in Greater Southwest Texas Area," *J. of Environ. Sci. and Health*, A38(12), 2759-2772 (2003).
37. Felix, K., Wise, K. Manna, S, Yamauchi, K., Wilson, B.L., Thomas, R.L., Kulkarni, A., Pellis, N.R., and Ramesh, G.T., "Altered cytokine expression in tissues of mice subjected to simulated microgravity" *Molecular and Cellular Biochemistry* 266: 79-85 (2004).
38. Wise, K., Manna, S., Yamauchi, K., Ramesh, V., Wilson, B.L., Thomas, R.L., Sarkar, S., Kulkarni, N., and Ramesh, G., "Activation of Nuclear Transcription Factor  $\kappa$ B In Mouse Brain Induced By A Simulated Microgravity Environment", *In Vitro Cell. Dev. Biol.—Animal* 41:118-123, March and April 2005.
39. Conley, F., Thomas, R.L., and Wilson, B.L., "Measurement of Volatile Organic Compounds in the Urban Atmosphere of Harris County, Texas," *Journal of Environmental Science and Health*, 40(9), 1689-1699 (2005).
40. Sarkar, P., Sarkar, R., Ramesh, V., Wilson, B.L., Thomas. R., Helen, K., Barnes, S., Kulkarni, A., Pellis, N.R., and Ramesh, G.T., "Proteomic Analysis of Mice Hippocampus in Simulated Microgravity Environment", *Journal of Proteome Research*, (2006).
41. Wise, K., Sarkar, S., Manna, S., Ramesh, V., Wilson, B. L., Thomas, R., Kulkarni, A. Pellis. N. R. and Ramesh G. T. (2006) "Activation of Activator Protein-1 in mouse brain regions exposed to simulated microgravity" *in vitro Cell and Dev. Biol.*, 42(3); 96-99; 2006.
42. Kun Tao, Shuying Yang, Jaime C. Grunlan, Yeon-Seok Kim, Bachlien Dang, Yuanjian Deng, Renard L. Thomas, Bobby L. Wilson, and Xin Wei , " Effects of Carbon Nanotube Fillers on the Curing Processes of Epoxy Resin-Based Composites", *Journal of Applied Polymer Science*, 102(6), 5248-5254 (2006).
43. Tao, K. Yang, S., Grunlan, J. C., Kim, Y. S., Dang, B., Deng, Y., Thomas, R L., Wilson, B. L., and Xin Wei, X., " Effects of Carbon Nanotube Fillers on the Curing Processes of Epoxy Resin-Based Composites", Received 18 March 2006; accepted 9 May 2006, DOI 10.1002/app.24773 Published online in Wiley InterScience ([www.interscience.wiley.com](http://www.interscience.wiley.com)).
44. Sarkar, S., Sharma, C., Yog, R., Periakaruppan, A., Jejelowo, O., Thomas, R., Barrera, E., Rice-Ficht, A., Wilson, B., and Ramesh, G. "Analyses of Stress Responsive Genes Induced by Single Walled Carbon Nanotubes in BJ Foreskin Cells", *Journal of Nanoscience and Nanotechnology*, vol. 7, 1-9, 2007.
45. Clement, J.Q., Lacy, S.M., and Wilson, B.L. (2007) Genome-wide gene expression profiling of microgravity effect on human liver cells. *Journal of Gravitational Physiology*. 14(1):P121-122
46. Sharma, S. C., Sarkar, S., Preyakaruppan, A., Sadanandan, B., Ravichandran, P., Thomas, R. L., Wilson, B. L. and Ramesh, G. T. (2008) Simulated Microgravity Activates Apoptosis and NF [kappa]B in Mice Testis" *Mol and Cell Bio*, 2008.
47. Clement, J.Q., Lacy, S.M., and Wilson, B.L., "Gene Expression Profiling of Human Epidermal Keratinocytes in Simulated Microgravity and Recovery Cultures" *Geno. Prot. Bioinfo.*, Vol. 6, No.1, 2008.
48. Periyakaruppan , A., Sarkar, S., Ravichandran, P., Sadanandan , B., Sharma, C.S, Ramesh , V., Hall, J.C., Thomas, R., Wilson, B.L., and Ramesh, G.T.," Uranium induces apoptosis in lung epithelial cells" , *Arch Toxicology* , 2009 June; 83(6) : 595-600.
49. Prabakaran Ravichandran, Sudhakar Baluchamy, Ramya Gopikrishnan, Santhoshkumar Biradar, Vani Ramesh, Virupaxi Goornavar, Renard Thomas, Bobby L. Wilson, Robert Jeffers, Joseph C. Hall, and Govindarajan T. Ramesh, "Pulmonary biocompatibility

assessment of inhaled single-wall and multi-wall carbon nanotubes in BALB/C mice,” *J. Biol. Chem.* 2011 *jbc.M111.251884*. First Published on June 24, 2011, doi:10.1074/jbc.M111.251884.

50. Keller, R., Bradbury, J., Cramer, R., Erickson, E., Forch, B., Meyer, S., Wilson, B., “Disposal Options for the Rocket Motors from Nerve Agent Rockets Stored at Blue Grass Army Depot,” National Research Council of the National Academies, Board on Army Science and Technology, International Book Number-13: 978-0-30-26045-9, 2012.
51. Clemens, P., Wei, X., Wilson, B., Thomas, R., “Anatase Titanium Dioxide Coated Single Wall Carbon Nanotubes Manufacture by Sonochemical-Hydrothermal Technique,” *Open Journal of Composite Materials*, Vol. 3, No. 2A, 2013, pp. 21-32. Doi:10.4236/ojcm.2013.32A004.
52. Oyewole, A., Thomas, R., Conley, F., Wilson, B., “The Effects of Copper, Manganese, and Vanadate Mixtures on Caco-2 Cell Cultures: A Case for the Precautionary Principle,” *International Journal of Business, Humanities and Technology*, Vol. 4, No. 2, March 2013, pp. 10-14.
53. Oyewole, A., Sapp, J., Wilson, B., Oyewole, O., “Potential Environmental Risks from Home Healthcare-Generated Municipal Solid Waste in Texas,” *International Journal of Business, Humanities and Technology*, Vol. 4, No 3, May 2014, pp. 6-12.

#### **RECENT PRESENTATIONS**

1. Reed, Raven, Tarver, Siobhan, and Wilson, Bobby, “Preliminary Assessment of Volatile Organic Compounds (VOCs) in Indoor Parking Facilities in the Houston Area,” Emerging Researchers National (ERN) Conference in Science, Technology, Engineering and Mathematics, Washington, DC, February 19-21, 2015.
2. Wilson, Bobby, “Raising Parental Awareness in S.T.E.M. Education and Equipping Sons and Daughters to Succeed,” NBITLO Houston 2013: Beyond S.T.E.M. Meeting of the National Black Information Technology Leadership Organization, Houston, TX, October 26, 2013.
3. Wilson, Bobby, “A New Agenda for Higher Education the United States: A Nation in Crisis,” 67<sup>th</sup> National Pan-Hellenic Council Biennial National Leadership Conference Houston, Texas, October 26, 2013.
4. Wilson, Bobby, “A New Agenda for Higher Education the United States: A Nation in Crisis,” 81<sup>st</sup> Grand Chapter Meeting of Kappa Alpha Psi Fraternity, Houston, TX, August 6-11, 2013.
5. Jing Fang, Mindy Nguyen, Jenny Phan, Yuanjian Deng, Renard L. Thomas, Bobby L. Wilson, and Xin Wei, “Electropolymerization of Polypyrrole on Single-Walled Carbon Nanotubes”, An abstract submitted to 69<sup>th</sup> American Chemical Society Southwest Regional Meeting in Waco, Texas in 2013.
6. Tiffany Gurley, Xin Wei, Renard L. Thomas, and Bobby L. Wilson, “Study of Structure-Property Relationships in Electrochemical Biosensing Films”, Minority Leaders Program review meeting in Dayton, Ohio in 2013.



7. Lewis, G., Naidu, N., Yakubu, M., and Wilson, B., ‘Analysis of Lindane and its Metabolites in Rats Feces by HPLC-UV-Vis and MALDI-TOF,’ 39<sup>th</sup> Meeting of NOBCChE, Washington, D.C., September 24-28, 2012.
8. Madison, O., Watson, K., Gibson, T., Sundaresan, A., and Wilson, B., “Determination of Acute Lymphatic Function After Exposure to the Environmental Hormone Diethylstilbestrol (DES) in Earth Bound Gravitational Conditions (1G),” 39<sup>th</sup> Meeting of NOBCChE, Washington, D.C., September 24-28, 2012.
9. Phillips, Shantell, Gonzalez, Perla, Obot, Edidiong, Thomas, Renard, Wilson, Bobby, “Effects of Titanium Dioxide carbon Nanotubes on Human Fetal Osteoblast Cells,” 2012 Emerging Researchers National Conference in STEM, Atlanta, GA, February 23-25, 2012
10. Adetoun, Aboaba, Thomas, Renard, and Wilson, Bobby, “Advancement of Water Treatment Using Carbon Nanotubes”, 38<sup>th</sup> Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Houston Texas, April 19-22, 2011.
11. Gibson, Terrell, Thomas, Renard, Ramesh, Govindarajan, and Wilson, Bobby, “Bio-Assessment of Human Health from Chronic Metal Exposure in the Urban Environment”, 38<sup>th</sup> Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Houston Texas, April 19-22, 2011.
12. Tarver, Siobhan, Thomas, Renard, and Wilson, Bobby, “Urine Analysis of Commuters’ Exposure to Volatile Organic Compounds in the Greater Houston Area Using Purge and Trap for Gas Chromatography”, 38<sup>th</sup> Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Houston Texas, April 19-22, 2011.
13. Dale, Zuri, Tatum, Katoria, Thomas, Renard, and Wilson, Bobby, “Assessment of Environmental Estrogens in the Galveston Bay Watershed”, 38<sup>th</sup> Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Houston Texas, April 19-22, 2011.
14. Stroud, Destinee, Dooley-Renfro, Jamie, Phan, Tuan, Wilson, Bobby -“Diruthenium Complexes as a Potential Anti-Cancer Agent”, 38<sup>th</sup> Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Houston Texas, April 19-22, 2011
15. Gibson, Terrell, Thomas, Renard, Ramesh, Govindarajan, and Wilson, Bobby, “Bio-Assessment of Human Health from Chronic Metal Exposure in the Urban Environment”, 114<sup>th</sup> Texas Academy Science, Stephenville, Texas, March 3-5, 2011.
16. Tarver, Siobhan, Ramesh, Govindarajan, Thomas, Renard, and Wilson, Bobby, “Studies of Single-Walled Carbon Nanotubes and Oxidative Stress”, 114<sup>th</sup> Texas Academy Science, Stephenville, Texas, March 3-5, 2011.
17. Dale, Zuri, Tatum, Katoria, Thomas, Renard, and Wilson, Bobby, “Assessing the Effects of Environmental Estrogens in the Galveston Bay Watershed”, 114<sup>th</sup> Texas Academy Science, Stephenville, Texas, March 3-5, 2011.

18. Carter, Nathaniel, Tatum, Katoria, Thomas, Renard, and Wilson, Bobby, "Assessing the Effects of Environmental Estrogens in the Galveston Bay Watershed", 114th Texas Academy Science, Stephenville, Texas, March 3-5, 2011.
19. Dale, Zuri, Thomas, Renard, and Wilson, Bobby, "The Assessment of Environmental Estrogens in the Galveston Bay Watershed", 113th Texas Academy Science, Stephenville, Texas, March 4-6, 2010.
20. Gibson, Terrell, Thomas, Renard, and Wilson, Bobby, "The Effects of Metal Exposure on Normal Osteoblast Cell Development Using Primary Teeth as a Bio-Indicator of Exposure", 113th Texas Academy Science, Stephenville, Texas, March 4-6, 2010.
21. Xin Wei, Mindy Nguyen, Renard L. Thomas, and Bobby L. Wilson, "Progresses in Electrochemical Functionalization of Carbon Nanotubes", Oral presentation in Minority Leaders Program review meeting in Dayton, Ohio in 2010.
22. Renard L. Thomas, Bobby L. Wilson, and Xin Wei, "Antimicrobial Activity of Metallized Carbon Nanotubes", Oral presentation in Minority Leaders Program review meeting in Dayton, Ohio in 2010.
23. Dale, Zuri, Thomas, Renard, and Wilson, Bobby, "The Characterization of Organic Compounds In the Effluent Wastewater Treatment Plants", National Science Foundation, HBCU-UP Conference, Atlanta GA, October 29 – November 1, 2009.
24. Dickerson, Treven, Thomas, Renard, and Wilson, Bobby, "Trace Metal Analysis of Primary Teeth as an Environmental Indicator using Inductively Coupled Plasma Mass Spectrometry (ICP-MS)", National Science Foundation, HBCU-UP Conference, Atlanta GA, October 29 – November 1, 2009.
25. Harris, Chelsea, Wei, Xin, Wilson, Bobby and Thomas, Renard, "Metalized Carbon Nanotube Synthesis in Reduced Gravity Conditions", 112th Texas Academy Science, Junction, Texas, March 3-5, 2009.
26. Johnson, Claudette, Harris, Chelsea, Stevenson, Christopher, Wilson, Bobby L., and Thomas, Renard L., "Trace Metal Analysis of Primary Teeth as an Environmental Indicator Using Inductively Coupled Plasma Mass Spectrometry (ICP-MS)", 112th Texas Academy Science, Junction, Texas, March 3-5, 2009.
27. Dale, Zuri, Thomas, Renard, and Wilson, Bobby, "*The Preliminary Characterization of Environmental Estrogens in Wastewater Effluents*", National Science Foundation, HBCU-UP Conference, Atlanta GA, October 23 - 26, 2008.
28. Williams, Brittney, Holloman, Mario, Thomas, Renard, and Wilson, Bobby, "Influence of Antioxidant Status in MCF-7 Cell Line to Etoposide Treatment", National Science Foundation, HBCU-UP Conference, Atlanta GA, October 23 - 26, 2008.
29. Scott, Reba, Tatum-Gibbs, Katoria, Phan. Tuan, Thomas, Renard, and Wilson, Bobby, "*The Preliminary Characterization of Environmental Estrogens in Wastewater Effluents*", American Chemical Society Annual Meeting, New Orleans, LA, PA, April 6-11, 2008.
30. Obot, Edidiong, Ramesh, Prathyush, Thomas, Renard, Ramesh, G.T., and Wilson, Bobby, "The Bioeffects of Metallized Nanotubes", American Chemical Society Annual Meeting, New Orleans, LA, PA, April 6-11, 2008.
31. Scott, Reba, Tatum-Gibbs, Katoria, Phan. Tuan, Thomas, Renard, and Wilson, Bobby, "*The Preliminary Characterization of Environmental Estrogens in Wastewater Effluents*", 35th Annual NOBCCChE Conference, Philadelphia, PA, March 16-21, 2008.

32. Obot, Edidiong, Ramesh, Prathyush, Thomas, Renard, Ramesh, G.T., and Wilson, Bobby, "The Bioeffects of Metallized Nanotubes", 35th Annual NOBCCChE Conference, Philadelphia, PA, March 16-21, 2008.
33. Scott, Reba, Tatum-Gibbs, Katoria, Phan. Tuan, Thomas, Renard, and Wilson, Bobby, "*The Preliminary Characterization of Environmental Estrogens in Wastewater Effluents*", TSU Research Week, March 31-April 4, 2008.
34. Scott, Reba, Tatum-Gibbs, Katoria, Phan. Tuan, Thomas, Renard, and Wilson, Bobby, "*The Preliminary Characterization of Environmental Estrogens in Wastewater Effluents*", 111th Texas Academy Science, Corpus Christi, Texas, March 6-9, 2008.

#### **THESES AND DISSERTATIONS:**

1. Olonode, Taofeek, (Advisor: B.L. Wilson) PHYTOREMEDIATION OF SOIL CONTAMINATED WITH USED MOTOR OIL WITH SUNFLOWER PLANTS. (GREEN HOUSE STUDY), Texas Southern University, 2015
2. Akhter, Asma, (Advisor: B.L. Wilson), Measuring The Trace Metals (Mo, Cd, Sn, U, and Pb) In Drinking Water From The Houston Area By Inductively Coupled Plasma Mass Spectroscopy (ICP-MS), Texas Southern University, 2013
3. Tarver, Siobhan, (Advisor: B.L. Wilson), Correlating Biological and Environmental Monitoring Assessing the Risk of Human Exposure to Volatile Organic Compounds in the Greater Houston Area, Ph.D., Texas Southern University, 2013
4. Lyons, L., (Advisor: B.L. Wilson), Study of In Vivo Exposure of Single-Walled Carbon Nanotubes on Mouse Liver, Ph.D., Texas Southern University, 2011
5. Ramadi, M., (Advisor: B.L. Wilson), The Study of Nanomaterials and their Antimicrobial Activity, Ph.D., Texas Southern University, 2009
6. Oyewole, A., (Advisor: B.L. Wilson) Toxicological Evaluation of Selected Houston Area Aquatic Systems, Ph.D., Texas Southern University, 2009
7. Babin, L., (Advisor: B.L. Wilson), Toxicological Assessment of Concentrations of Volatile Organic Compounds Found in the Ambient Air of Seabrook, Texas and Surrounding Areas, Ph.D., Texas Southern University, 2008
8. Tatum-Gibbs, K. (Advisor: B.L. Wilson), The Analysis and Characterization of Environmental Estrogens in the Galveston Bay Watershed and their Cytotoxic Effects on Fish Liver and Reproductive Cell Lines, Ph.D., Texas Southern University, 2007
9. Gibbs, E. (Advisor: B.L. Wilson), Comparison of Various Metals on the Oxidative Stress Using 8-Hydroxy, 2-deoxyguanosine as a Biomarker, MS, Texas Southern University, 2007
10. Johnson, P.J. (Advisor: B.L. Wilson), The Impact of Agricultural Animal Waste Water Lagoons on Shallow Groundwater Systems, Ph.D., Texas Southern University, 2007
11. (Kristanto, G.A. (Advisor: B.L. Wilson), Assessment of Volatile Organic Compounds (VOCs) In Indoor Parking Facilities at Houston, Texas, Ph.D., Texas Southern University, 2006.
12. Conley, F.L. (Advisor: B.L. Wilson), Identification and Quantification of Volatile Organic Compounds in the Urban Atmosphere of Houston, Texas, Ph.D., Texas Southern University, 2004.
13. Khan, N.N., (Advisor: B.L. Wilson), An Environmental Assessment of Mold Concentrations and Potential Mycotoxin Exposure in the Greater Southeast Texas Area, Ph.D., Texas Southern University, 2003.
14. El-Demerdash, A. (Co-Advisors: Saleh, M.A., and Wilson, B.L.), Applications of Scientific Imaging in Environmental Toxicology, Ph.D., Texas Southern University, 2002.

15. Johnican, M.D., (Co-Advisors: Criner, O.H., and Wilson, B.L.), Integrated Environmental Assessments of the Toxicological and Environmental Effects of Surface Water Contaminants, Ph.D., Texas Southern University, 2002.
16. Walker, A. (Advisor: B.L. Wilson), The Synthesis and Characterization of Dichloro[bis(dihydrobis(pyrazolyl)borate)] and Hafnium(IV) Complex, MS, Texas Southern University 2001.
17. Obot, C. (Co-Advisors: Felder, T.B., and Wilson, B.L.), Both Organic and Metallic Fractions of Particulate Matter Induce Apoptosis By Interacting With Alveolar Macrophage Scavenger Receptors, Ph.D., Texas Southern University, 2001.
18. Parker, T. (Advisor: B.L. Wilson), The Synthesis and Characterization of Dichloro[bis(dihydrobis(pyrazolyl)borate)]Zirconium(IV), MS, Texas Southern University, 1999.
19. Hampton, J.M. (Co-Advisors: Saleh, M.A., and Wilson, B.L.), Identification and Characterization of Potentially Toxic Organic Compounds in Carpet Vacuum and Air Conditioner Filter Dusts, Ph.D., Texas Southern University, 1998.
20. Ewane, E.N. (Co-Advisors: Saleh, M.A., and Wilson, B.L.), Analytical Assessment of Inorganic Environmental Pollutants in Water, Ph.D., Texas Southern University, 1998.
21. Newsome, T.M. (Co-Advisors: Saleh, M.A., and Wilson, B.L.), Environmental Analysis and Characterization of Organic Matter Found in Indoor Atmospheric and Ground-Level Dust, MS, Texas Southern University, 1998.
22. Obot, C. (Co-Advisors: Saleh, M.A., and Wilson, B.L.), Monitoring of Chemical Transformation Produced During the Use of Motor Oil and Its Environmental Impact, MS, Texas Southern University, 1998.
23. Smith, L. (Advisor: B.L. Wilson), The Synthesis and Characterization of Dibromo[bis(dihydrobis(pyrazolyl)borate)]Zirconium(IV) and Its Use as a Catalyst for Direct Coal Liquefaction, MS, Texas Southern University, 1997.
24. Chen, G., (Advisor: Wilson, B.L.), The Synthesis of Zirconyl Dihydrobis(pyrazolyl)borate and Evaluation of It as a Catalyst for Coal Liquefaction, Ph.D., Texas Southern University, 1995.
25. Willis, M.A., (Advisor: Wilson, B.L.), Comparison of Bis[hydrotris(pyrazolyl)borate]-Cobalt(II) and Bis[di- $\eta$ -butyldithiocarbamate-S,S]Cobalt(II) in Tetralin and Tetralin/Water Mixtures in Direct Coal Liquefaction, MS, Texas Southern University, 1995.
26. Wilkerson, D.F., Investigation of Radionuclides in the Aqueous Sediment Environment Surrounding a Coal Burning Power Plant, MS, Texas Southern University, 1992.
27. Samuel A. Ogunkeye, The Synthesis and Characterization of Dichlorobis(hydrotris(pyrazolyl)borate)Hafnium(IV), MS, Texas Southern University, 1984.
28. Nelida G. Gaffare, Lead Monitoring at a Stationary Emission Source by Ion Selective Electrode Method, MS, Texas Southern University. 1984.
29. Francis I. Addo, The Synthesis and Characterization of Diiodobis[tetrakis(pyrazolyl)borate]Hafnium(IV), MS, Texas Southern University, 1983.
30. Kenneth U. Erondy, Evaluation of Selected Heavy Metal Concentrations in the Soil of an Urban University Campus, MS, Texas Southern University, 1982.
31. Clyde C. Henderson, A Comparative Chemical Analysis of the Six Leading and Competitive Beers on the Texas Beer Market Today, MS, Texas Southern University, 1982.
32. Patience A. Onwunali, Determination of Part Per Billion Quantities of Mercury in Liquid Matrices by a Gold Film Mercury Detector, MS, Texas Southern University, 1982.

33. Herbert O. Alalonu, The Synthesis and Characterization of Diiodobis[hydrotris(pyrazolyl)borate]Hafnium(IV) Complex, MS, Texas Southern University, 1982.
34. Robson, Mafoti, An Evaluation of the Lead Electrode in the Determination of Sulfate in Water, MS, Texas Southern University, 1981.
35. Pouran A. Merrikhi, The Determination of Sulfate Concentration in the Aqueous Environment Using the Lead Electrode, MS, Texas Southern University, 1981.
36. Victor O. Ogugbuaja, The Analyses of Aqueous Sediments for Heavy Metals, MS, Texas Southern University, 1981.
37. Dwight Reid, The Synthesis and Characterization of Dichlorobis[tetrakis(pyrazolyl)borate]Hafnium(IV), MS, Texas Southern University, 1981.
38. Nwazue Etonyeaku, The Evaluation of Heavy Metals (Cr, Ni, and Co) in the Aqueous Environment Surrounding a Coal Burning Generating Plant, MS, Texas Southern University, 1981.
39. Renard L. Thomas, A Study of Hydrotris(pyrazolyl)borate Complexes of Zirconium(IV), MS, Texas Southern University, 1981.
40. Homa Dabiry, The Synthesis and Characterization of Some Dihalobis[tetrakis(pyrazolyl)borate]Titanium(IV), MS, Texas Southern University, 1980.
41. Callista O. Chukwunenye, The Determination of Total Sulfide Concentration in the Aqueous Environment Using the Silver/Sulfide Electrode, MS, Texas Southern University, 1980.
42. Seydkarim Malekasa, The Synthesis and Characterization of Tetrakis(tetrakis(pyrazolyl)borate)Titanium(IV), MS, Texas Southern University, 1979.
43. Jaber Cyrus, The Development of a Field Electrode Method for the Determination of Total Sulfide in Water and Wastewater, MS, Texas Southern University, 1979.
44. Rahim Rahbarnoohi, The Synthesis and Characterization of Tetrakis[tetrakis(pyrazolyl)borate] Complexes of Zirconium(IV), MS, Texas Southern University, 1978.
45. Shapour Asslani, The Synthesis and Characterization of Some Tetrakis[tetrakis(pyrazolyl)borate] Complexes of Zirconium(IV), MS, Texas Southern University, 1978.
46. Mohammad H. Habibi, General Trends in the Chemistry of Niobium(IV), MS, Texas Southern University, 1978.
47. Rahim Hani Zavareh, The Synthesis and Characterization of Tetrakis[hydrotris(pyrazolyl)borate]Zirconium(IV), MS, Texas Southern University, 1978.

**CURRENT MAJOR ADVISOR OF THE FOLLOWING STUDENTS:**

Daryl Wilkerson	Ph.D.	Samrawit Yeshitla	Ph.D.
Everton Brown	Ph.D.	Carla Fortune	Ph.D.
Gray Murphy	Ph.D.	Sharnika Edwards	MS
Olufunmilayo Owopetu	MS		

**BOOKS:**

1. General Chemistry Laboratory I Manual (with E. Booker and P. Thurston), Ginn Press, Needham Heights, MA, 1988.

2. General Chemistry Laboratory II Manual (with E. Booker and P. Thurston), Ginn Press, Needham Heights, MA, 1989.

#### **BOOK CHAPTERS:**

1. "A Model for Improving Graduation and Retention Rates for STEM Students at an HBCU", Models for Success, third edition, (Wilson, B.L., Obot, V.D, Taylor, W.E.), Thurgood Marshall College Fund/Department of Defense, page 176- 190, 2008.
2. "Identification of Putative Major Space Genes Using Genome-Wide Literature Data," Haitham Abdelmoaty, Timothy Hammond, Bobby Wilson, Holly Birdsall and Jade Clement, Biotechnology, ISBN 978-953-51-2040-7, edited by Deniz, 2015.

#### **PATENTS:**

1. Xin Wei, Yuanjian Deng, Renard L. Thomas, and Bobby Wilson, Instantaneous Electro Deposition of Metal Nanostructures on Carbon Nanotubes, 8,709,226, 4/29/14
2. Singhal, G.H., Colle, K.S., Edelson, E.H., Wilson, B.L., and Dao, L.H., Catalyst for the Hydroconversion of Carbonaceous Materials, US Patent Number 4,561,964, 12/31/85.
3. Singhal, G.H., Wilson, B.L., Edelson, E.H., and Mikita, M.A., Catalytic Process for Hydroconversion of Carbonaceous Materials, US Patent Number 5,064,527, 11/12/91.

#### **ADMINISTRATIVE RESEARCH AND ACCOMPLISHMENTS:**

In the areas of Academic Affairs and Student Services, particularly in developmental education, much of my attention was devoted to analyzing the trends and factors that impact the performance of students on the state-mandated test, Texas Academic Skills Program (TASP). An on-going collection and review of the data have suggested several factors that influence students' performance on the three sections of the test. Reviews of the data have produced several research studies.

Additionally, data collected from specific areas of student services, ranging from teaching to administrative advising, have served as the foundation for research projects, the springboard for developing methods to reform the curriculum, the means of refining the strategic planning process, and the procedure for systematizing the assessment of programs, faculty, and instruction.

The appointment of new deans to the Jesse H. Jones School of Business, Colleges of Education, College of Pharmacy and Health Sciences, Barbara Jordan-Mickey Leland School of Public Affairs, Thurgood Marshall School of Law, Tavis Smiley School of Communication, and Science and Technology stabilized the instructional administrative component of university governance.

In line with the strategic plan to enhance instructional and research facilities, the on-campus Colleges of Education, College of Pharmacy and Health Sciences building were renovated and enlarged, and space in the Texas Medical Center was also leased and renovated for these programs. On campus, the John Bigger's Art Center was renovated, Thurgood Marshall School of Law building was renovated, and a new science building was constructed.

A section in the College of Education building was also fitted to accommodate the Distance Education Plan that was approved by the Texas Higher Education Coordinating Board. This plan was designed to foster partnership programs with business and industry.

Through the initiative to increase graduate degree offerings the following programs were added to the curriculum: a master's degree in health care administration, a master's degree in computer science, MS and Ph.D. degrees in urban planning and environmental policy, MS and Ph.D. degrees in pharmaceutical sciences, and MS and Ph.D. degrees in administration of justice.

The increase in course was accomplished through the addition of courses in high demand areas, the enhancement of programs in the professional schools, and the re-establishment of the school of public affairs and the school of communication.

Recruitment of an ethnically diverse, as well as an academically and specially talented student body was aided by increased external funding for scholarships and improved retention efforts. By monitoring student-learning outcomes, assessing academic program learning objectives, and enhancing the advisement systems in degree granting departments, retention and graduation rates increased.

#### **SCIENTIFIC RESEARCH:**

Research has focused upon unusual metal-centered complexes of early first, second and third row transition elements using spectroscopic techniques and the area of environmental chemistry and environmental toxicology in particularly the effect of water and air pollution. In addition to water and air, trace metal and radionuclide concentrations are also being investigated. Other areas of concerns are instantaneous electro deposition of metal nanostructures on carbon nanotubes and the study of nanomaterials and their antimicrobial activity.

As former director of the NASA **Research Center for Biotechnology and Environmental Health** (RCBEH) at Texas Southern University, I lead a team to investigate the toxicology of the space travel environment by using the cutting-edge tools, approaches, and applications of nanotechnology and genomics. The overall goals, associated with the two focus areas of microorganism and genotoxicology, are to identify "space genes" that may affect human adaptation in the space environment and to measure oxidative stress and DNA damage in human and mammalian cells.

#### **GOVERNMENTAL EXPERIENCE:**

Experience includes former program director for the National Science Foundation's Institutional Support Programs. The Institutional Support Programs are designed to strengthen research capabilities of institutions with significant minority enrollments, including predominantly minority institutions, and to increase the minority presence in science and engineering by making substantial resources available to upgrade the research capabilities of the most productive minority institutions.

As program director for Institutional Support Programs, my duties involved formulating and interpreting policies, making recommendations to top management, including the assistant director for Education and Human Resources; the director of the National Science Foundation (NSF); and the National Science Board. First, the position required my serving as the Foundation's

representative on Institutional Support Programs to the Congress, the general public, and other government agencies. Second, it required my providing leadership and direction in the formulation of agency-wide program objectives, plans, policies and criteria, which impacted the national interest. Third, it required my advising the highest levels of agency management in major areas of importance in overall policy and program direction and my serving as spokesperson for the agency in this regard with the academic community.

Fourth, the position mandated my stimulating research activities at institutions with sizable minority enrollments through the establishment of those goals, objectives, and policies that strengthen their programs. Fifth, it provided opportunities for my assisting institutions to obtain needed research support through personal contacts with eligible faculty throughout the country.

Sixth, the position demanded my assuming the lead role in seeking a balanced research endeavor and in stimulating the effectiveness of the programs by establishing policies, criteria, and standards. Seventh, it made provision for my resolving critical issues affecting the program, which resulted from an awareness of conflicting demands for scarce resources. Eighth, the position required my evaluating the utilization of funds against progress made and my reorienting programs to meet exceptionally important new or modified policies and goals and to overcome unforeseen difficulties and unsatisfactory results.

Finally, the position provided instances for my giving advice and consultation to agency consultants and other program officers throughout the foundation concerning the application of agency policy decisions made about proposals under review as well as allowing my spearheading internal and external ad hoc committees of persons knowledgeable of the special problems faced by eligible institutions and researchers.

#### **SYNERGISTIC ACTIVITIES:**

Dr. Wilson has been instrumental in building the research component of the science programs at Texas Southern University. His efforts have generated over \$60 million in research and training grants to the university. His commitment to promoting the University's research agenda for its professors and producing future scientists led to the construction of the Texas Southern University Science Center, \$35 million structure with state of the art laboratories, classrooms, and computer labs. A 4,300 square foot lab houses the Houston Louis Stokes Alliance for Minority Participation Program. This lab is complete with 33 computers, two large printers, and two 50-inch plasma flat screen monitors. The lab has teleconferencing capabilities, which enable students to interact and present their research with other college and universities.

Perhaps his most ambitious and forward-looking venture has been the establishment of the Louis Stokes Alliance for Minority Participation (LSAMP) in seven Houston-area colleges and universities. He is the co-principal investigator of this consortium, which is designed to substantially increase the number of underrepresented minorities in the fields of science, technology, engineering, and mathematics. Its success at Texas Southern University and other Houston-area colleges and universities has been judged to be among the best LSAMP program in the nation. This judgment bears witness to Dr. Wilson's vision and leadership.

Not only is Dr. Wilson nationally known for his remarkable scholarly achievements and publications, he has also been a mentor to over 70 MS students in chemistry and 20 MS and/or



Ph.D. students in the Environmental Toxicology Program, which he was instrumental in establishing as Texas Southern University's first Ph.D. program.

**RECENT TEACHING ASSIGNMENTS:**

Environmental Toxicology Seminar – ES 921, ES 922, ES 923,  
Research Problems – ES 724  
Research and Dissertation – ES 925  
Chemistry 861  
Chemistry 454  
Chemistry 499

**RESEARCH GRANTS:**

1. The Synthesis and Characterization of Some Poly(pyrazolyl)borate Complexes of Zirconium(IV) and Niobium(IV), National Science Foundation, 1977-78, \$20,000.
2. The Development of a Field Electrode Method for the Determination of Total Sulfide in Water and Wastewater, Environmental Protection Agency, 1978-80, \$50,505.
3. Evaluation of Sulfur Species in the Aqueous Environment of Some Southwest Texas Areas Soon to Burn Coal for Electric Power Generation, Department of Energy, 1978-79, \$51,106.
4. Evaluation of Trace Elements in the Aqueous Environment, Department of Energy, 1979-80, \$66,189.
5. The Study of Some Early Transition Metals in Oxidation State IV Using the Potassium Poly(pyrazolyl)borate as Ligands, US Army, 1980-82, \$60,416.
6. The Study of Some Early Transition Metals in Oxidation State IV Using the Potassium Poly(pyrazolyl)borates as Ligands, US Army, 1982-83, \$30,450.
7. The Study of Some Transition Metal Complexes as Process Catalysts, Department of Energy, 1984-87, \$119,675.
8. An Investigation of Trace Metals in the Aqueous Environment, Department of Energy, 1985-87, \$132,244.
9. A Study of Coal Liquefaction and Related Environmental Effects Using Mass Spectrometry, Department of Energy, 1986-89, \$220,545.
10. Investigation of Coal, Coal Derived Products and Coal Catalysts, National Science Foundation, 1987-90, \$285,000.
11. The Preparation and Study of Titanium, Zirconium, and Hafnium Complexes, National Aeronautics and Space Administration, 1988-91, \$309,540.
12. Science and Mathematics Apprenticeship Program: Pre-college Science and Mathematics Research Apprenticeship Program, Glenmede Trust Foundation/Howard University, 1987 - 1989, \$10,000.
13. Research and Engineering Apprenticeship Program: The Academy of Applied Science, 1982 - 2011, \$1,200,000.
14. Department Support Grant, Robert A. Welch Foundation, 1995-2001, \$150,000.
15. Intergovernmental Personal Act (IPA) Program, National Science Foundation, 2/1/96-8/31/97, \$211,933.
16. Development of NASA JSC High Pressure Laboratory, NASA, 1998-2002, \$865,047.
17. Historically Black Colleges and Universities and Minority Institutions Environmental Technology Consortium, Department of Energy, 1991-2003, \$1,227,830.

18. Louis Stokes Alliances for Minority Participation, National Science Foundation, 1999-2004, \$3,628,250.
19. Enhancement and Upgrading the Biomarker and Environmental Toxicology Laboratory, NIH/NCRR, 1999-2004, \$449,304.
20. An Urban Outreach Program in Space Science, NASA, 2000-2003, \$236,884.
21. Historically Black Colleges and Universities and Minority Institutions Environmental Technology Consortium, Department of Energy, 2002-2007, \$500,000.
22. NASA Research Center for Biotechnology and Environmental Health, NASA, 2003-2008, \$6,000,000.
23. Chemical and Biological Assessment of Endocrine Disruptors in Waterways of Southeast Texas, NSF, 2004-2007, \$998,328.
24. Louis Stokes Alliances for Minority Participation, National Science Foundation, 2004-2009, \$5,000,000.
25. An Educational and Research Outreach Program in Space Science, NASA, 2004-2007, \$208,686.
26. NIH-RCMI: Institute for Biomedical and Health Disparities Research, 2004- 2009, \$9,600,000.
27. NASA/Spelman College, Students Pursuing Academic and Career Excellence, NASA, 2007-2010, \$375,000.
28. Science and Technology Enhancement Program, NSF, 2006-2012, \$3,000,000.
29. Air Force Research Laboratory (AFRL) HBCU/MI – Clarkson Aerospace Corporation: Materials and Manufacturing Research in Nano Technology, 2005-2014, \$992,148.
30. TEA/ Energized for STEM Academy, ESTEM, 2008-2013, \$385,000.
31. Louis Stokes Alliances for Minority Participation, National Science Foundation, 2009-2014, \$962,500.
32. UNCF-Special Programs NASA Science and Technology Institute for Minority Institutions, 2009-2011, \$120,000.
33. NASA, Dependence of Radiation Quality on Charged Particle-Induced Early and Late damage in Chromosomes, 2011-2014, \$1,178,300
34. On the Move Systems, Inc., 2011-2012, \$120,000.
35. Minority Undergraduate/Graduate Student Technical Presentation Experience at the 2013 NOBCCChE Annual Technical Conference, National Science Foundation, 2013-2014, \$65,100.
36. Air Force Research Laboratory (AFRL) HBCU/MI – Clarkson Aerospace Corporation: Sensors Technical Thrust Research, 2013-2015, \$330,778.
37. Louis Stokes Alliances for Minority Participation, National Science Foundation, 2014-2019, \$3,750,000.
38. Minority Undergraduate/Graduate Student Technical Presentation Experience at the 2014 NOBCCChE Annual Technical Conference, National Science Foundation, 2014-2015, \$81,500.
39. NIH-RCMI: Center for Biomedical and Health Research Excellence Intuitions, 2013- 2018, \$852,660.

### **INTERNATIONAL GRANTS:**

1. Investigation of Inorganic Pollutants in El Fayoum Aquatic Environment, United States of America and Arab Republic of Egypt, Foreign Relations Coordination Unit of the Supreme Council of Universities, (Cairo University), 1984-86, \$100,000.
2. The Development and Conservation of Wadi El Raiyan's Western Desert, United States of America and Arab Republic of Egypt, Foreign Relations Coordination Unit of the Supreme Council of Universities, (Al Azhar University), 1990-92, \$200,000.
3. Egypt's Student Exchange Program, Egyptian Cultural & Educational Bureau, 1992-93, \$4,000.
4. Egypt's Student Exchange Program, Egyptian Cultural & Educational Bureau, 1997-99, \$12,000.

### **PENDING GRANTS:**

1. College of Science, Engineering, and Technology Implementation Project, National Science Foundation, 2015-2020, \$1,750,000.

### **PROFESSIONAL INVOLVEMENT:**

#### American Chemical Society (ACS)

Member, Task Force on Minority Faculty in the Chemical Academic Community (2001-2004)

Member, Task Force on Black History Month ACS-NOBCChE Project (2013-Present)

#### National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE)

Regional Chair (1978 - 1996)

Member of the Executive Board (1998 - 2001)

Advisor, Texas Southern University NOBCChE Student Chapter (1991 - Present)

Chairman of the Executive Board (2005-2015)

#### Historically Black Colleges and Universities and Minority Institutions Environmental Technology Consortium

Member, Executive Steering Committee (1991 – 2006)

#### Texas Academy of Science

Chair, Chemistry Division (1992 and 1996)

Chair, Environmental Science Division (1999)

Member, Executive Board (2000 - 2003)

#### Research and Engineering Apprenticeship Program, Academy of Applied Science

Director and Mentor (1982 - Present)

#### Fort Bend Independent School Districts

Judge, Science Fairs (1978 - Present)

#### Houston Independent School Districts

Judge, Science Fairs (1978 - Present)

Member, Windsor Village Elementary School Advisory Committee (1996 - 2000)

Member, School of the Future Partnership Council (1997 - 1999)

Member, Houston Urban Learning Initiatives in a Networked Community (HU-LINC) Advisory Committee (1998 - 2003)

#### Houston Community College-Northeast

Member, Environmental Science and Biotechnology Advisory Committee (1999 - Present)

Rice University

Mentor, McNair Program (1998 - 2008)

Sam Houston State University

Member, Technology Review Council of the Environmental Technology Development and Commercialization Center (1998 - 2002)

Texas Higher Education Coordinating Board

Member, Pre-K Through 16 Council (1999 – 2004)

Texas Chief Academic Officers

Member, (1999 – 2008)

Texas Space Grant Consortium

TSU Representative (1999 – Present)

Partnership for Quality Education

Member, Governing Council (2000-2006)

Southeast Texas Biotechnology Park Coalition

Member (2000-2005)

BioHouston

Member, Executive Board (2005-2010)

The National Association for Equal Opportunity in Higher Education

Member, NAFEO Science and Technology Committee (2002-2006)

Texas Higher Education Coordinating Board

Member, Tuning Oversight Council for Engineering and Science (2011-Present)

National Research Council of the National Academics

Member, Committee on Disposal for the Rocket Motors of Nerve Agent Rockets at Blue Grass Army Depot (2011-Present)

American Association for the Advancement of Science

National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Representative to the American Association for the Advancement of Science Section on Education (2014-Present)

#### **UNIVERSITY SERVICE:**

Research Centers in Minority Institutes

Chairman, Internal Advisory Committee (2008-2014)

Ph.D. Degree Environmental Toxicology

Program Director (1998-2013)

COST Curriculum Committee

Member (2009-2012)

University Curriculum Committee

Member (2009–2011)

Faculty Senate Advisory Committee

Member (2011-Present)

Ad Hoc Committee on Drafting Distinguished Professorship Criteria and Process

Member (2011-2014)

Task Force for Implementation of TSU/UH Research Partnership, (2013-Present)

COST By-Laws Committee

Member (2013-Present)

COST New Faculty Mentoring Committee

Member (2013-Present)  
COST Suspension and Re-Admission Committee  
Chair (2013-Present)  
COST Faculty Workload Committee  
Member (2013-Present)

**COMMUNITY SERVICE:**

Briarchase Missionary Baptist Church  
Chairman, Board of Trustees (1977-Present)  
Minister of Education (1982 - Present)  
City of Pearland Higher Education Task Force  
Member (2007-Present)  
City of Houston Forensic Science Local Government Corporation Technical Advisory Group  
Member (2013-Present)

Revised: 8/9/15