



## **RHODES UNIVERSITY, GRAHAMSTOWN, SOUTH AFRICA**

### **STAFF INFORMATION**



**DISTINGUISHED PROFESSOR TEBELLO NYOKONG (HonFRSC, OMB, FRSSA, FRS)**

**Distinguished Professor Rhodes University  
Director: Rhodes/DSI Institute for Nanotechnology Innovation  
DSI/NRF Research Professor of Medicinal Chemistry and Nanotechnology  
Director: DSI/Mintek Nanotechnology Innovation Centre - Sensors**

#### **CONTACT DETAILS:**

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#### **EDUCATION DETAILS:**

**PhD** Chemistry, The University of Western Ontario, London, Ontario, Canada, 1987.

**MSc** Chemistry, McMaster University, Hamilton, Ontario, Canada, 1981.

**BSc** Chemistry and Biology, with Concurrent Certificate in Education, University of Lesotho, 1977.

*MSc and PhD studies funded by the Canadian International Development Agency (CIDA).*

*BSc funded by the Lesotho Government.*

**APPOINTMENTS AND EXPERIENCE:**

- Distinguished Professor of Chemistry
- Director of the DST/Mintek Nanotechnology Innovation Centre – Sensors
- Holder of Research Chair Medicinal Chemistry and Nanotechnology- awarded by DST/NRF
- Adjunct professor of chemistry at University of Tromso in Norway- from 2008
- Professor of Physical-Inorganic Chemistry, Rhodes University, 2001-2006
- Associate Professor of Physical-Inorganic Chemistry, Rhodes University, 1998 -2000
- Lecturer/Senior Lecturer in Chemistry, Rhodes University, 1992 - 1997.
- Lecturer/Senior Lecturer in Physical-Inorganic Chemistry, University of Lesotho, 1981, 1987-1991.
- Teaching Assistant, McMaster University, 1979-1980, and The University of Western Ontario, 1982-1986.

**RESEARCH OUTPUTS (PUBLICATIONS, BOOKS, BOOK CHAPTERS & PATENTS:**

Over 950 Research Outputs - Click on link below to see details:

<https://www.ru.ac.za/nanotechnology/researchoutputs/>

**RESEARCH PROJECTS:**

Click on link below for more details:

<https://www.ru.ac.za/nanotechnology/researchareas/>

**LETTER TO 18-YEAR-OLD SELF:**

Click on link below for Prof Nyokong's letter to her 18-year-old self:

<https://scienceclubforgirls.wordpress.com/2011/03/08/tebello-nyokongs-letter-to-her-young-self/>

**SELECTED BOOK & NEWSPAPER ARTICLES (2020-2023):**

Click on link below for more details:

[https://www.ru.ac.za/media/rhodesuniversity/content/nanotechnology/documents/Book\\_and\\_Newspaper\\_articles.pdf](https://www.ru.ac.za/media/rhodesuniversity/content/nanotechnology/documents/Book_and_Newspaper_articles.pdf)

#### **RECOGNITION AND AWARDS:**

***Distinguished Prof Nyokong is an A-rated scientist and received the following awards during her career:***

- 2024 - Awarded Degree of Doctor of Science, Honoris Causa from Imperial College London, UK (October 2024)
- 2023 - Appointed as a member of the Pontifical Academy of Social Sciences by Pope Francis
- 2023 - Selected as a Fellow of the Royal Society in the United Kingdom (UK)
- Awarded Degree of Doctor of Science, Honoris Causa from McMaster University in Canada (November 2021)
- 2021 - Honorary Fellow of the Royal Society of Chemistry
- 2020 - Linstead Career Award in Phthalocyanine Chemistry
- Awarded Degree Of Doctor Of Science, Honoris Causa from Western University, London, Ontario, Canada (11-15 June 2019)
- Awarded Doctor of Science Honoris Causa by University of Kwazulu-Natal, 18<sup>th</sup> April 2018
- November 2017 - Council for Scientific and Industrial Research (CSIR) – National Laser Centre Rental Pool Programme Award based on student training on lasers supplied through the programme:
  - An award for the number of Doctoral students that graduated in 2016/2017 and
  - Number of students trained in 2016/2017
- November 2017 - Black Science, Technology & Engineering Professionals (BSTEP) identified Prof Nyokong as a legend and honoured her in its first ever Black Science, Engineering and Technology (SET) excellence award ceremony.
- 2016 – Council for Scientific and Industrial Research (CSIR) – National Laser Centre Rental Pool Programme Award for most publications and most doctoral students trained in 2015.
- Continental Award - Kwame Nkrumah Scientific Award by the African Union in 2016
- Recognized by CEO (Celebrating excellence in organizations) in Johannesburg as the most influential woman in Education & Training in South Africa and the SADC (Southern African Development Community) region. CEO is a network of leaders from the SADC” – 2015

- UNESCO Medal for Contribution to Development of Nanoscience and Nanotechnologies - 2015
- Appointed by United Nations Secretary-General Ban Ki-moon as part of United Nations Secretary-General's High-Level Panel on Technology Bank For Least Developed Countries - 2015
- Jury - L'ORÉAL-UNESCO For Women in Science Awards 2014/2015
- Featured in 21 Icons (SABC-3), South Africa - 2014
- National Research Foundation "Lifetime Achievement Award" - 2013
- National Research Foundation Rating: A
- Awarded Third World Academy of Science (TWAS) Medal - 2013
- ISE Electrochemistry Excellence Award: Teaching & Research – 2013
- Elected fellow of the African Academy of Sciences - 2013
- South African Chemical Institute (SACI) Gold Medal award – 2012
- Included in the National Center for Research on Human Evolution (CENIEH), located in Burgos, Spain to be one of their "13 NAMES TO CHANGE THE WORLD" – 2012
- Named by IT News Africa as one of the top 10 most influential women in science and technology in Africa.
- Awarded the Distinguished professorship at Rhodes University 2012
- RSC (Royal Society in Chemistry)/ PACN (Pan African Chemistry Network) Distinguished Women in Chemistry: 2011
- Invited by Irina Bokova, Director-General of UNESCO, to be a member of the UNESCO High-level panel on Science, Technology and Innovation for sustainable Development, June 2011
- International Conference on Frontiers of Polymers and Advanced Materiel (ICFPAM) award in memory of the centenary of the first Nobel Prize in Chemistry awarded to a woman: Marie Curie. And also this is the year of Chemistry, 26th May 2011.
- Inducted by Vodacom Lesotho into the Lesotho Hall of Fame, 2010
- Awarded Doctor of Science Honoris Causa by Walter Sisulu University, 3rd May, 2010
- Awarded Doctor of Science Honoris Causa by University of South Africa, 11th May, 2010
- Elected Fellow of Third World Academy of Science -2009.
- Awarded NRF President's award as Champion for the transformation in research – 2009.
- Awarded 2009/2010 CEO (Celebrating excellence in organizations) Most Influential Women in

Business and Government (MIW) – Education and Teaching Sector.

- Received L’Oreal-UNESCO award for “Women in Science” as a Laureate representing Africa and the Arab States in 2009. Committee chaired by Prof A Zewail (Recipient of Nobel prize in Chemistry, 1999). Also in the committee C. de Duve, recipient of Nobel prize in Medicine, 1974).
- September, 2009, a motion was passed in the National Assembly acknowledging her role in transformation of science in South Africa. Subsequently she addressed the Parliament Portfolio Committee on Science.
- Recognized as one of the top three publishing scientists in South Africa for 2007.
- Awarded City Press / Rapport Prestige Awards for Inspirational Women Achievers – 2008.
- Awarded Research chair for Medicinal Chemistry and Nanotechnology by the Department of Science and Technology and the National Research Foundation, starting 2007.
- Bestowed with the Order of Mapungubwe: Bronze by the State President Mbeki -2005.
- Awarded a Grant-Holder medal for 2005 from CSIR for being the best NLC grant holder of the year 2005.
- Chosen as Rhodes University Rhodes Women of the Year in the Senior Research category, 2006.
- Winner of SABC2/Shorprite-Checkers Woman of the year 2004 in Science and Technology.
- Runner-up- DST Women in Science, 2004 and 2008.
- Selected by Department of Science and Technology to present the Frances Ames Lecture, 2004.
- Vice-Chancellor’s Distinguished Senior Research award - 2003.
- Elected Fellow of the Royal Society of South Africa (FRSSA).
- Member of the Academy of Science of South Africa.
- Fulbright Award, 1990. Visited the Radiation Laboratory, University of Notre Dame, Indiana, USA.
- Financial Mail little black book list for two years (2006, 2007, 2008, 2009) for top 100 influential people in South Africa.

**MEMBERSHIP TO BOARDS/COUNCILS OF ORGANISATIONS:**

- Member of Council of Scientific and Industrial Research (CSIR) Strategic Review Committee – 2012
- Appointed to United Nations Educational, Scientific and Cultural Organization (UNESCO) Panel – 2011

- Jury Member for the L'Oreal/UNESCO Regional Fellowships for Women in Science in Sub-Saharan Africa -2011
- Member of Board of Directors: Friends of Pwani University (FoPU) (Kenya) from 2011
- National Research Foundation Board member (2005 – 2011).
- Board of the "Women in Science and Technology in Africa Network", an organization which is sponsored by the Rockefeller Foundation and UNESCO -1995-2000. Still continue mentoring women even though the funding ended.
- Board of the DST-NRF Centre of Excellence in Catalysis (appointed 2005, but resigned end of 2005 due to load).
- A member of Council: University of Lesotho -2005 -2008.
- Judge: Shoprite/Checkers-SABC-2 Woman of the year-Science and Technology – 2006-2008.

#### **EDITORSHIP/MEMBERSHIP TO EDITORIAL BOARDS:**

- Editor: African Journal of Pure and Applied Chemistry.
- South African Representative: Society of Porphyrins and Phthalocyanines based in France.
- Global Journal of Physical Chemistry – Editorial Board member
- Journal of Spectroscopy & Dynamics – Editorial Board member
- International Journal of Electrochemical Science – Editorial Board member
- Advanced Materials Letters – Editorial Board member
- Guest editor: Special Issue for International Journal of Photoenergy (2011) Special Issue on Photomedicine and Photo Nanosystems
- Guest Editor: International Journal of Electrochemistry: Special Issue "Surface Electrochemistry: Structured Electrode, Synthesis, and Characterization
- Evaluation of French projects : Agence Nationale de la Recherche
- Evaluation of Belgian projects : Research Foundation Flanders
- Evaluation of Czech Republic research foundation projects

#### **MENTORSHIP:**

Mentoring: Dr Ceril Jones, of Savannah State University,

Project Title: Thermodynamic Characterization of Phthalocyanines for Photodynamic Therapy.  
National Institute of Health (NIH) funding.

**ADVISORY ROLES:**

- Invited to assist in the selection of the Associate Professor of Chemistry, University of Venda, Feb., 1997.
- A member of the Water Research Commission Steering Committee reviewing the University of the Western Cape Project on Desalination and Disinfection of Water, 1998-2001
- A member of the Foundation for Research Development (FRD) panel for monitoring FRD/Industry programs at Port Elizabeth Technikon, 1998.
- A member of the advisory board: International Conference and exhibition on Integrated Environmental Management in South Africa, held Feb. 1998. This conference was a joint effort between Germany and South Africa.
- A member of the Advisory Board: Southern and Eastern Africa Network of Analytical Chemists (SEANAC) conference. Gaborone, Botswana, 7 – 10 July, 2003 and 15-18th July, 2007.
- A member of the South SOUTH AFRICAN REFERENCE GROUP ON WOMEN IN SCIENCE AND TECHNOLOGY, a group under the Department of Science and Technology –2003.
- Appointed by the Minister of Science and Technology to be a member of the panel to select members of council for the South African Council for Natural Scientific Professions (April, 2004).
- A member of the advisory Board for the XVIII International Symposium on Bioelectrochemistry and Bioenergetics (19-24 June, 2005, Coimbra, Portugal.
- A member of the advisory Board: The World Association of Laser Therapy 2008 Conference, 19 - 22 October 2008, Sun City, South Africa.
- Invited to review candidates for 2010 Reaxys PhD Prize- Post-doctoral fellows from UK, Belgium, Spain, France and the UK.
- Advisory board of South African Chemical Institute (SACI) 2011 CONVENTION, 16– 21 January 2011, University of Witwatersrand, Johannesburg.