

Tefera Entele Tesema, Ph.D.

Assistant Professor of Chemistry (Electronics and Photonics Materials)

Department of Chemistry, Prairie View A&M University, E.E. O'Banion Science Building, Suite
230 W, 100 L.W. Minor Street, Prairie View, TX 77446-0519

Phone: (936) 261-3106, tetesema@pvamu.edu

Curriculum Vitae

EDUCATION

- 2020 Ph.D. in Chemistry, Department of Chemistry & Chemical Biology, University of New Mexico, USA.
- 2005 Graduate Diploma in Education, Jimma University, Ethiopia.
- 2002 M. Sc. in Chemistry, Department of Chemistry, Addis Ababa University, Ethiopia.
- 1997 B.Sc. in Chemistry and Mathematics and Physics Minor, Department of Chemistry, Addis Ababa University, Ethiopia.

ACADEMIC APPOINTMENTS

- 2022 – present Assistant professor of Chemistry, Prairie View A&M University
- 2020 2022 Postdoctoral Fellow, University of New Mexico, Albuquerque, NM.
- 2018 - 2020 Graduate Research Assistant, University of New Mexico, Albuquerque, NM.
- 2014 - 2018 Graduate Teaching Assistant, University of New Mexico, Albuquerque, NM.
- 2012 - 2014 Lecturer, Adama Science and Technology University, Adama, Ethiopia
- 2008 – 2010 Visiting research scholar, Faculty of Bioscience Engineering, Gent University, Gent, Belgium.
- 2007 Visiting research scholar, Addis Ababa University, Addis Ababa, Ethiopia
- 2003 - 2012 Lecturer, Jimma University, Jimma, Ethiopia

PROFESSIONAL AFFILIATIONS AND UNIVERSITY COMMITTEE SERVICES

- 2013 – 2014 Associate Dean of school of natural science, Adama Science and Technology University, Adama, Ethiopia
- 2009 – 2012 Department Chair, Department of Chemistry, College of Natural Science, Jimma University, Jimma, Ethiopia
- 2006 – 2007 Department Chair, Department of Chemistry, Faculty of Education, Jimma University, Jimma, Ethiopia

COURSE MATERIALS PREPARED

- 2009 Research Methodology and Scientific writing Module for senior year chemistry students, Jimma University, Jimma, Ethiopia.
- 2006 Fundamentals of Inorganic Chemistry Module for undergraduate chemistry students, Jimma University, Jimma, Ethiopia.

Selected PEER-REVIEWED PUBLICATIONS

- 2022 (1) **Tefera Entele Tesema**, Ross McFarland-Porter, Epherem Zerai, John Grey, and Terefe G. Habteyes, Hierarchical Self-Assembly and Chemical Imaging of Nanoscale Domains in Polymer

- Blend Thin Films, Special issue on "Nanophotonics for Chemical Imaging and Spectroscopy", *Journal of physical Chemistry C*, 2022, 126, 17, 7764–7772.
- 2020 (2) **Tefera E. Tesema**, Hamed Kookhaee, Terefe G. Habteyes, Extracting Electronic Transition Bands of Adsorbates from Molecule-Plasmon Excitation Coupling, *Journal of physical Chemistry Letter*, 11, 3507-3514.
- (3) Haq, S., **Tesema, T.E.**, Patra, B., Gomez, E. & Habteyes, T.G. Tuning Plasmonic Coupling from Capacitive to Conductive Regimes via Atomic Control of Dielectric Spacing. *ACS Photonics* 7, 622-629.
- 2019 (4) **Tefera E Tesema**, Bijesh Kafle, Terefe G Habteyes, 'Plasmon-Driven Reaction Mechanisms: Hot Electron Transfer versus Plasmon-Pumped Adsorbate Excitation', *Journal of Physical Chemistry C*, 123, 8469-83.
- 2018 (5) **Tefera E Tesema**, Christopher Annesley, Terefe G Habteyes, 'Plasmon-Enhanced Autocatalytic N-Demethylation', *The Journal of Physical Chemistry C*, 122, 19831-41.
- (6) Bijesh Kafle, Paul Gieri, Hamed Kookhaee, **Tefera E Tesema**, Sharmin Haq, Alejandro Manjavacas, Terefe G Habteyes, 'Robust Charge Transfer Plasmons in Metallic Particle–Film Systems', *ACS Photonics*, 5, 4022-29.28
- 2017 (7) **Tefera E Tesema**, Bijesh Kafle, Meron G Tadesse, Terefe G Habteyes, 'Plasmon-Enhanced Resonant Excitation and Demethylation of Methylene Blue', *The Journal of Physical Chemistry C*, 121, 7421-

CONFERENCE PRESENTATION AND SEMINAR

- 2019 **Tefera E. Tesema** and Terefe G. Habteyes, Plasmonic Energy Expenditure of Surface Photochemistry (2019), Poster presented at Sandia National laboratory, Center for Integrated Nanotechnology Annual User Meeting, La Fonda on the Plaza in Santa Fe, New Mexico.
- 2018 **Tesema, Tefera Entele**, Annesley, Christopher J, Habteyes, Terefe G, (2018).” Mechanistic Study of Surface Plasmon Enhanced Photochemistry.” Poster presented at Gordon Research Conference on Noble Metal Nanoparticle, South Hadley, MA.
- 2008 **Tesema, Tefera Entele**, Win Thielemans, Peter Licence, Nigist Asfaw, Yonas Chebude, (2008). “Chemical modification of cassava starch”, Poster presented at Addis Ababa, Ethiopia.

AWARDS/GRANTS RECEIVED

- 2019 Clark Person Graham Teaching Award, Department of Chemistry and Chemical Biology, University of New Mexico.
- 2019 Research Grant, Center for integrated nanotechnology, Sandia national laboratory.
- 2013 Research Grant, Adama Science and Technology University, Ethiopia.
- 2008 Research Grant, VLIR-IUC program, Belgium.
- 2007 Research Grant, DFID, the British Council-DeLPhE, and RSC, University of Nottingham, UK and Department of Chemistry, Addis Ababa University.

PROFESSIONAL MEMBERSHIP

Member, American Chemical Society
 Member, Ethiopian Chemical Society