

Biosketch



Prof. Mamadou Diallo was trained both as a chemical/environmental engineer and a physical chemist. He holds an Engineer Diploma in Mineral Engineering from École Nationale Supérieure des Mines de Rabat (ENSMR) [Morocco], a M.S degree in Chemical Engineering from Colorado School of Mines, a M.S. degree in Chemistry and a Ph.D. degree in Environmental Engineering from the University of Michigan. He also completed post-doctoral training in Computational Chemistry at the California Institute of Technology. Prof. Diallo's current research interests and activities focus on the utilization of advanced polymers and supramolecular hosts as building blocks to prepare new families of multifunctional membranes for sustainable chemistry, engineering and materials (*SusChEM*) including: 1) fouling-resistant ultrafiltration (UF) membranes for desalination pretreatment, water reuse and resource recovery, 2) weak-base ion exchange (IX) membrane absorbers for biochemical separations and purifications, 3) high capacity UF membrane absorbers for metal ion extraction from aqueous waste streams, 4) catalytic UF membranes for green chemistry and 5) high efficiency and flexible cathode materials for electrochemical CO₂ reduction and water splitting.

In December 2009, Prof. Diallo began a joint faculty appointment between the Korea Advanced Institute of Science and Technology (KAIST) and the California Institute of Technology (Caltech). At KAIST, he served as Associate Professor and Director of the Laboratory of Advanced Materials and Systems for Water Sustainability of the KAIST Graduate School of Energy, Environment, Water and Sustainability (EEWS) from December 2009 to August 2016. At Caltech, he is currently a Visiting Faculty in Chemical Engineering in the Division of Chemistry and Chemical Engineering. In addition to his professorial duties, Prof. Diallo serves as Associate Editor of the *Journal of Nanoparticle Research* (JNR) and member of the Editorial Advisory Board of *Environmental Science and Technology* (ES&T). He is also a member of the Scientific Advisory Boards of the US DOE Critical Materials Institute and the Nanosystems Engineering Research Center for Nanotechnology-Enabled Water Treatment at Rice University. Prof. Diallo has made significant contributions to advance nanotechnology convergence for *SusChEM*. In 2015, he served as lead guest editor of a special issue of ES&T on "Critical Materials Recovery from Solutions and Wastes". In 2014, Prof. Diallo was also the lead editor of a special issue of JNR devoted to "Nanotechnology for Sustainable Development".