Speaker of Session 23

THIN FILM TECHNOLOGY FOR ENERGY APPLICATIONS

Martin O'Toole, PhD, is a professor of Bioengineering at the Univeristy of Louisville in Louisville, KY, USA. His research interests focus on development of new composite materials for energy applications, drug delivery, tissue engineering, and bio-assay technologies. Specifically, we are currently focused on developing gold nanoplate (GNPlate) based composite materials for energy harvesting and photothermal applications. The GNPlates are optically active in the near infrared, making them suitable for many photothermal and remote heating applications. We are developing composite materials that take advantage of these properties to develop polymer/GNPlate composites for that interact with external stimuli to initiate events such as molecular motions, polymer phase changes, and changes in membrane porosity. ite your bio-sketch here, and replace the photo to the left with yours.