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Effect of Pd-based Nanoparticles on the Structural Properties of Electrospun Titania Nanofibers DANIEL ISAACS, NENAD STOJILOVIC, University of Wisconsin Oshkosh, MAJA SCEPANOVIC, MIRJANA GRUJIC-BROJCIN, Institute of Physics, University of Belgrade, LAILA SHAHREEN, GEORGE CHASE, The University of Akron — Electrospun titania nanofibers coated with PdO nanoparticles show promise for applications in catalyst support structures, for the reduction of NO and CO gases. The catalytic and optical properties of these flexible ceramic nanostructures can be tailored by controlling experimental conditions. In this project we investigate how Pd concentration within the electrospinning solution affects the anatase-to-rutile phase transition of the composite nanofibers. Structural properties are studied using X-rays diffraction (XRD) system and Raman spectroscopy whereas surface morphology was monitored using electron microscopy.

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