

Short Bio:

Teresa Barnes manages the Materials Reliability and Durability Group at NREL. She is also the Principal Investigator and Director of the DuraMAT Consortium for module materials research. Dr. Barnes' group focuses on PV module and system reliability, including accelerated test development, materials and interface modeling, degradation mechanisms, field failure modes, sustainability, and materials science. Our group has worked with stakeholders throughout the PV value chain on the development of industry standards for reliability testing and energy yield. We conduct application driven research on adhesion, cell and module degradation, mechanical damage, material weathering, and other topics.

Teresa has worked in PV at NREL for 16 years on thin-film PV, flexible devices, and transparent contacts and started focusing on reliability in 2016. She is a Chemical Engineer with a PhD from the Colorado School of Mines and a BS from the University of Maryland.