Danielle Julie Carrier
Associate Professor
Biological and Agricultural Engineering
University of Arkansas, Fayetteville
Phone: 479 575 2351
Email: carrier@uark.edu

Academic interests: Biological & Agricultural Engineering

Research Focus & Techniques of Expertise: Research is aimed at extracting valuable chemical components from biomass. One of her projects is devoted to the extraction of hemicelluloses from energy crops in view of conversion to biofuels or other valuable chemicals. Her other project consists of extracting and purifying components produced from "hairy roots" that are produced at Arkansas State University. Purification of these compounds is done by centrifugal partition chromatography, which a unique liquid-liquid separation technique that can be scaled-up.

Current Research Projects:

- Production of biologically active stilbenes (resveratrol and resveratrol derivatives) in hairy root cultures
- Characterization and quantification of monomers, oligomers and by-products from hemicellulose during pretreatment

Grants

Grant P3-103: Regulation, Production and Purification of Bioactive Stilbenoids from Hairy Root Cultures of Peanut.
PI: Fabricio Medina-Boliver; **Co-PI's**: **Julie Carrier** and Maureen Dolan