

AUTHOR:

Christian Lenges

DuPont Industrial BioSciences,
200 Powder Mill Road, Experimental Station E353, Wilmington
19803, DE, USA
E-mail: Christian.P.Lenges@dupont.com

TITLE: "Enzymatic Polymerization: Nuvolve™ Engineered
PolySaccharides & Progress in Application Development"

ABSTRACT:

Polysaccharides are important biopolymers with a wide range of industrial and consumer product applications. Historically, structural polysaccharides such as cellulose have been the backbone of early material science for applications in fibers & nonwovens, films and early thermoplastics.

DuPont Industrial Biosciences has been developing a new family of engineered polysaccharides ranging in molecular weights, solubility, and polymer architecture. The enzymatic polymerization process offers the opportunity to design the polymer structure, morphology and the material properties of these biomaterials. This new class of biomaterials allows for differentiated performance with regard to a range of properties. This presentation will discuss the new polymerization process, key advances towards first commercial introduction as well as first examples of market applications.