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Materials

Research in the design, development, manufacture and measurement of natural and synthetic polymers and fibers, including polymer mixtures and additives.

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By decreasing chain entanglements during spinning, we hope to optimize polymer stretching and increase chain orientation and fiber tenacity. [M98-A4]	
Photoadaptive Fibers	2
We are developing photoadaptive fibers that reversibly change their optical, heat reflectivity and electrical properties when exposed to high intensity visible light. [M98-A10]	
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Stimuli-sensitive materials change their properties upon tiny environmental changes. [M98-A16]	
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We are designing fibers that can quickly change their color, hue, depth of shade or optical transparency by application of an electrical or magnetic field. [M98-C1]	
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Abbreviations

The following abbreviations are not always defined in articles

Auburn (A): University of Auburn, Auburn AL 36849	MAE: Mechanical and Aerospace Engineering	TexE: Textile Engineering
Chem Eng: Chemical Engineering	ME: Mechanical Engineering	TFE: Textile and Fiber Engineering
CivE: Civil Engineering	M.I.T.: Mass. Inst. of Technology	TFPS: Textile, Fiber & Polymer Science
Clemson (C): Clemson University, Clemson SC 29634	NC State (N): North Carolina State University, Raleigh NC 27695	TRI: Textile Research Institute (Princeton NJ 08542)
dpf: denier per filament	NMR: nuclear magnetic resonance	UAB: Univ. of Alabama-Birmingham
ESR: electron spin resonance	PET: poly(ethylene terephthalate)	UC-Davis: University of Calif - Davis
Fib: Fiber	PhiladelphiaU (P): Philadelphia University, Philadelphia PA 19144	UD: = University of Delaware
Georgia Tech (G): Georgia Institute of Technology, Atlanta GA 30332	Poly Sci: Polymer Science	UG: University of Georgia
IPST or InstPaperSci&Tech: Institute of Paper Science & Technology	S: University of Sydney, Australia	UNC-G: University of North Carolina at Greenville
ITT: Institute of Textile Technology, Charlottesville VA 22903-4614	TAM: Textile and Apparel Management	UMassD (D): University of Massachusetts at Dartmouth, MA 02747
	[TC] ² :Textile/Clothing Technology Corp	UofPA: University of Pennsylvania
	TE: Textile Engineering	U of Tenn: University of Tennessee
	Tex: Textile	

Discontinued Projects

The following NTC programs were discontinued because they successfully completed their maximum three-year life span or because other research was of higher priority. For their last report, see the NTC Web site at <http://www.ntcresearch.org>, the April 2000 *NTC*

Research Briefs or the November 2000 *NTC Annual Report*. You may also contact the principal investigators whose phone numbers and E-mail addresses are listed therein. However, several new programs grew out of these projects. See the notes following the listings below and a page number, if

Modeling Blood Flow Through Vascular Grafts (Dunn) [M98-P2]

Development and Experimental Validation of Nonlinear Phenomena for High-Speed Yarn Transport Systems

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