Credit: ACS

STEPHANIE KWOLEK

- Polymer chemist at DuPont
- Initially took a job at DuPont in 1946 (the job was only open to women due to WWII) to earn enough money for medical school.
- Most notable invention: Kevlar, or poly(paraphenylene terephthalamide)
  - Discovered during her work on liquid crystalline polyamides
  - Kwolek decided to investigate a cloudy polymer solution that was traditionally thrown out, leading to the discovery of highly aligned polyamide molecules
  - Won the DuPont Lavoisier Medal for this achievement in 1995, the only woman to have won this prestigious award
- Other numerous awards include: Chemical Pioneer Award (American Institute of Chemists), Award for Creative Invention (American Chemical Perkin Medal, National Medal of Technology, …

NOTABLE PATENTS AND PUBLICATIONS

United States Patent

Kwolek

[15] **3,671,542**

[45] ***June 20, 1972**

[54] **OPTICALLY ANISOTROPIC AROMATIC POLYAMIDE DOPES**

[72] Inventor: **Stephanie Louise Kwolek**, Wilmington, Del.

[73] Assignee: **E. I. du Pont de Nemours and Company**, Wilmington, Del.

[56] **References Cited**

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3,232,910

Paul W. Morgan
and **Stephanie L. Kwolek**
Textile Fibers Department
E. I. du Pont de Nemours & Co., Inc.
Wilmington, Delaware

The Nylon Rope Trick

Demonstration of condensation polymerization

Synthesis, Anisotropic Solutions, and Fibers of Poly(1,4-benzamide)

S. L. Kwolek,* P. W. Morgan, J. R. Schaefgen, and L. W. Gulrich[1]

Pioneering Research Laboratory, Textile Fibers Department, E. I. duPont de Nemours and Company, Wilmington, Delaware 19898. *Received April 11, 1977*

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Interfacial polycondensation. II. Fundamentals of polymer formation at liquid interfaces†

Paul W. Morgan, Stephanie L. Kwolek

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