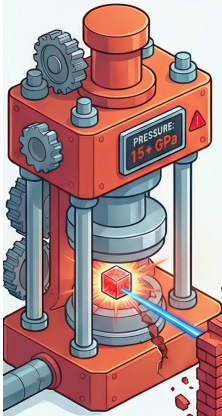


Unlocking Nanothread Production: The 5 GPa Laser Breakthrough



THE HIGH-PRESSURE BARRIER (THE PROBLEM)

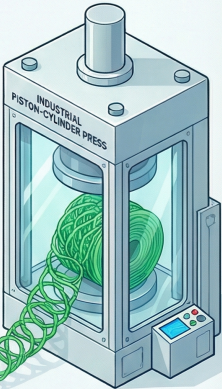
Extreme Pressure Required: >15 GPa

Traditional methods need immense pressure, limiting them to specialized lab equipment.

THE LASER-ASSISTED SOLUTION

Two-Photon Laser Initiation

A 450 nm femtosecond laser triggers the reaction deep within the material.

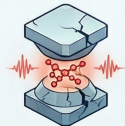


Extreme Pressure Required: >15 GPa

Immense pressure, limiting them to specialized lab equipment.

Micro-Scale Production

Yields are tiny (mm^3 scale), produced in expensive Moissanite Anvil cells.

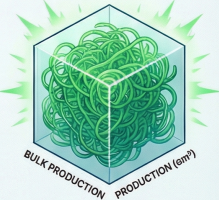


Pressure Barrier Smashed: 5 GPa

This new threshold allows the use of robust, industrial-scale Piston-Cylinder presses.

1,000x Increase in Production Yield

The process moves from cubic millimeters to cubic centimeters, enabling bulk manufacturing.



Parameter	Traditional Method (Benzene)	New Method (Furan)
Required Pressure 	>15 GPa	5 GPa
Initiation Method 	Purely Mechanical	Laser (Two-Photon Absorption)
Production Scale 	 mm^3 (Lab Scale)	 cm^3 (Industrial Scale)