

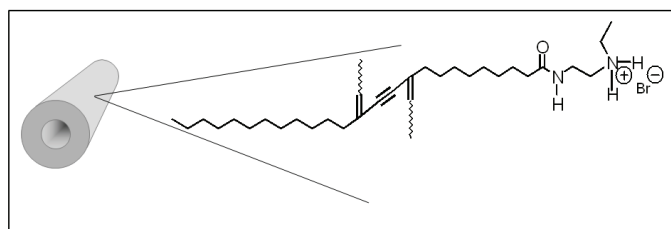
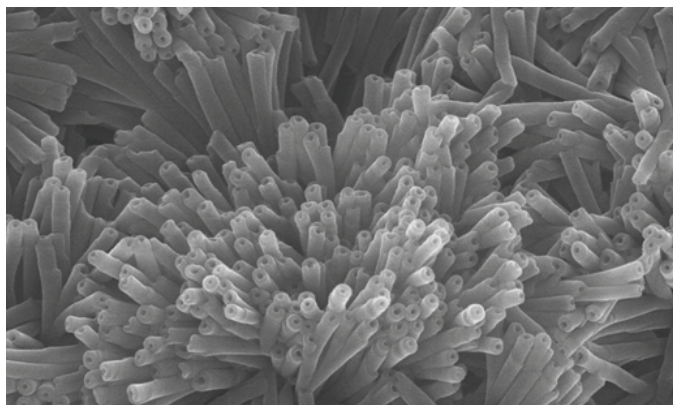


Polydiacetylene Nanotubes (PDNT)

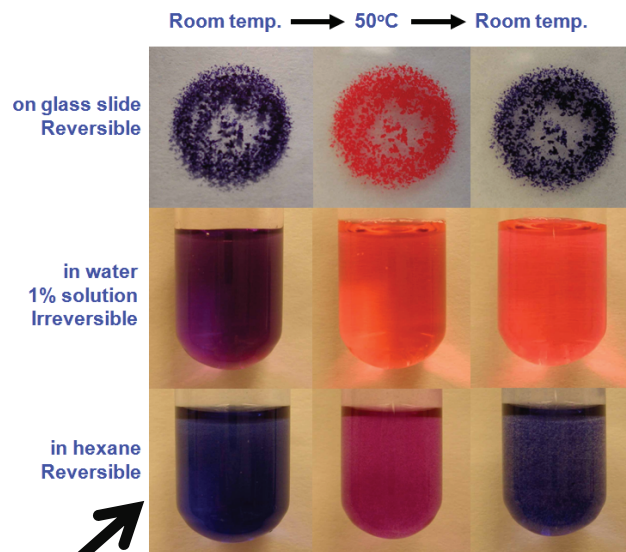


metals · inorganics · organometallics · catalysts · ligands · nanomaterials · custom synthesis · cGMP facilities

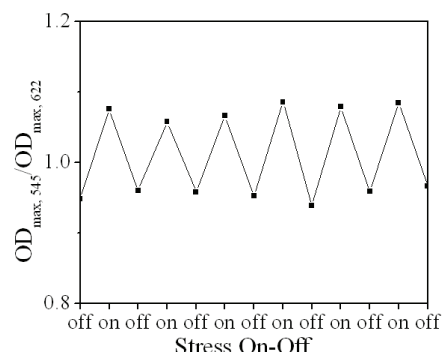
Polydiacetylene Nanotubes (PDNT) are self-assembled diacetylene nanotubes comprised of cross-linking of conjugated double and triple bonds. They are produced using a proprietary molecular self-assembly process that results in remarkably uniform, pure, air-stable blue nanotubes (ID 34nm, OD 98nm and length 1 - 3 μ m). PDNT nanotubes exhibit thermochromism either on different substrates or in solvents. This unique thermo- and mechano-chromic behavior has been demonstrated to be completely reversible for hundreds of cycles.



Strem Catalog No.
06-1060 Polydiacetylenenanutube (PDNT)-12-8-2-2-Br



“Thermochromism”
“Mechanochromism”
“pH sensitivity”
“Chemical sensitivity”



Features include:

- Deep blue nanotube powder
- Photoconductivity
- Extremely uniform inner and outer diameter of nanotubes
- Electroconductivity
- Thermo- and mechanochromism
- High purity
- No adverse reaction observed with fibroblast cells
- Pi bond electrons within polymer chain enables greater electron conductivity
- Price competitive with carbon nanotubes

Potential Applications include:

- Stimuli-sensitive smart nanomaterial composites
- UV-based sensors
- Drug delivery systems (DDS)
- Microelectronics
- Optoelectronics
- Molecular sensors for chemical detection
- Artificial retinas
- Biosensors for viruses, bacteria, enzymes, and other biologically important materials
- Neuronal networks
- MEMS
- Colorimetric pressure sensors
- Membrane filtration
- Langmuir-Blodgett films
- Gas separation
- Lab on a chip

Visit www.strem.com for new product information and searchable catalog.

Strem Chemicals, Inc.

7 Mulliken Way
Newburyport, MA 01950-4098
U.S.A.
Tel.: (978) 499-1600
Fax: (978) 465-3104
Email: info@strem.com

Strem Chemicals, Inc.

15, rue de l'Atome
Zone Industrielle
67800 BISCHHEIM France
Tel.: (33) 03 88 62 52 60
Fax: (33) 03 88 62 26 81
Email: info.europe@strem.com

Strem Chemicals, Inc.

Postfach 1215
77672 KEHL
Germany
Telefon: 0 78 51/ 7 58 79
Email: info.europe@strem.com

Strem Chemicals UK Ltd.

An Independent Distributor of Strem Chemicals products
Newton Hall, Town Street
Newton, Cambridge
CB22 7ZE, UK
Tel.: 0845 643 7263
Fax: 0845 643 7362
Email: enquiries@strem.co.uk