

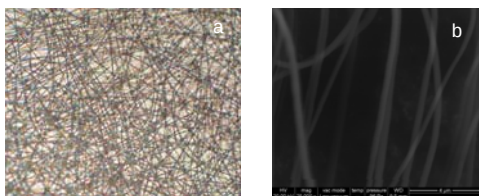
nano PROSPECT

**Institutul de Chimie Macromoleculara
"Petru Poni" Iasi, Laborator Policondensare**

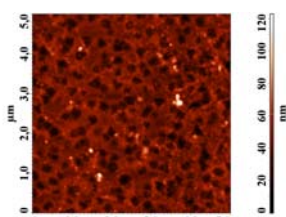
**M.D. Damaceanu, R.D. Rusu, S. Chisca, I. Sava, E. Hamciuc,
L. Marin, M. Bruma**

Contact: Dr. Mariana-Dana Damaceanu, email: damaceanu@icmpp.ro

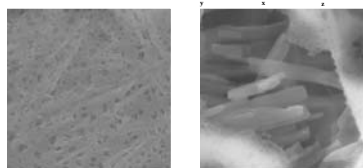
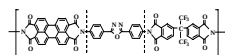
1. Institutul pentru Tehnologia Filmelor Subtiri si Microsenzori, Teltow, Germania
2. Centrul de Cercetari Chimice - Budapesta, Ungaria
3. Institutul de Compusi Element-Organici – Moscova, Rusia
4. Istituto per lo Studio delle Macromolecole - Milano, Italia
5. Centrul de Polimeri si Materiale pe baza de Carbon, Zabrze, Polonia



Imagini de microscopie optica (a) si SEM (b) ale unor nanofibre de poliimida obtinute prin electrospinning pentru aplicatii electronice

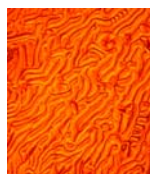
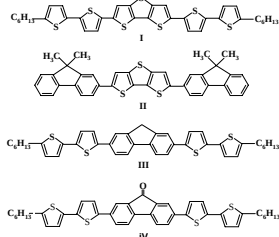


Film de poliimida ce contine
nanopori pentru aplicatii in
membrane sau interstraturi dielectrice

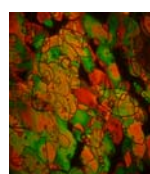


*Filme omogene si auto-organizate in nanostructuri
segregate pe verticala din poliperilenimida*

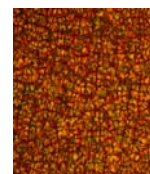
J. Polym. Sci. Part A: Polym. Chem. **2010**, 48, 4230–4242
Macromol. Symp. **2010**, 296, 399–406
Rev. Roum. Chim. **2010**, 55(11-12), 953–961



I, 1C, 290 °C, 200x, 90 °C/min,
Transitie de faza
nematic/smectic



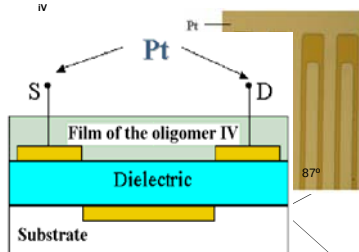
II, 2H, 254 °C, 400x,



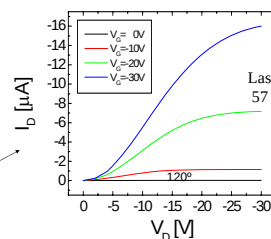
III, 1H, 355 °C, 400x
Texture fine



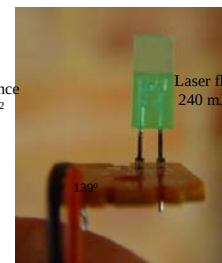
IV, 1C, 300 °C, 200x
Textura Schlieren



OFET pe baza de oligomer IV

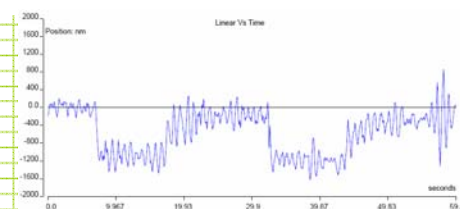


$\mu : 10^{-4} - 10^{-3} \text{ cm}^2/\text{Vs}$
 $\mu : 5 \times 10^{-2} \text{ cm}^2/\text{Vs}, T_{\text{sub}} = 130^\circ \text{ C}$

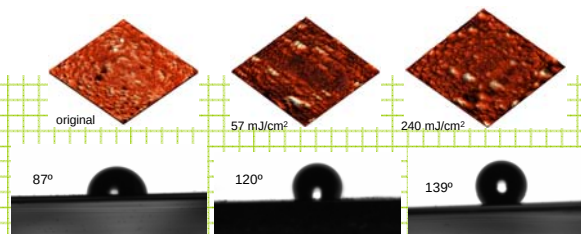
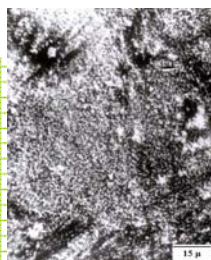


LED pe baza de oligomer II

Nanoactuatie obtinuta in film de poliimida



Imagine TEM a unui film nanocompozit FeS₂/poliimida



Suprafata superhidrofoba