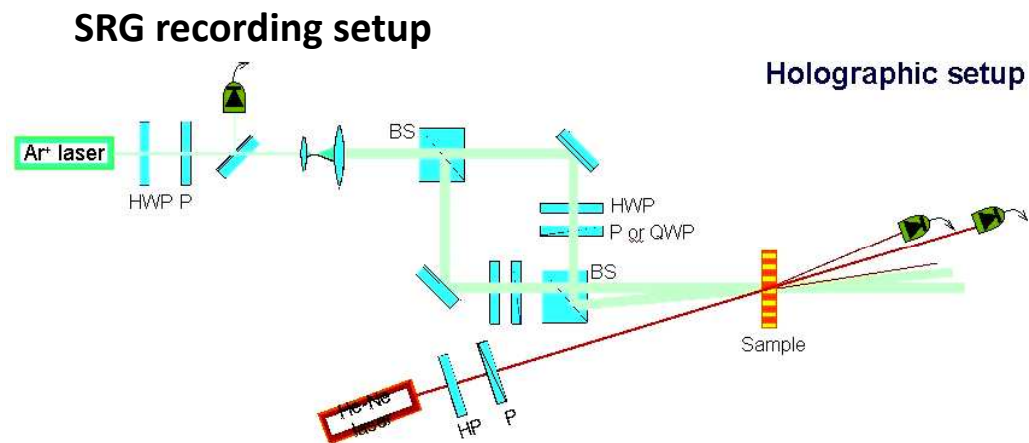
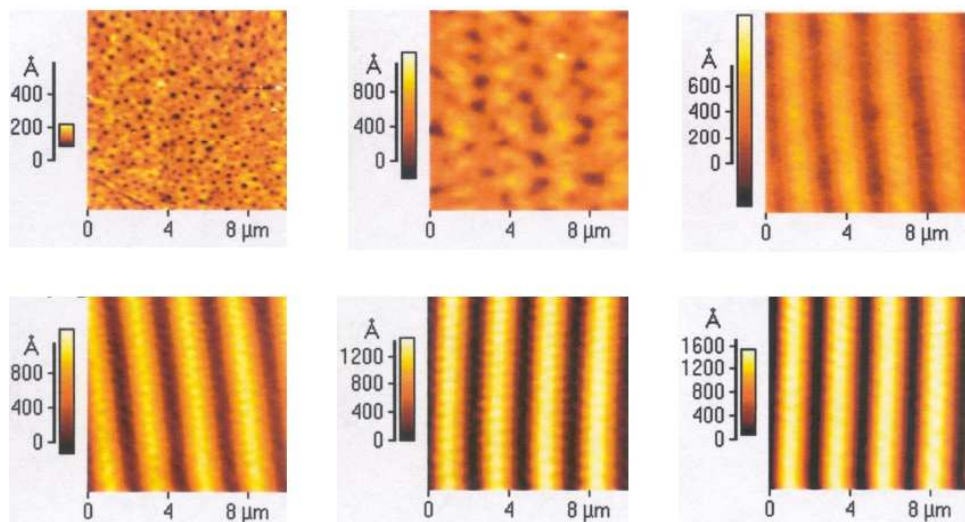


# Surface relief grating (SRG) phenomenon in azobenzene-containing liquid-crystalline (LC) polymers



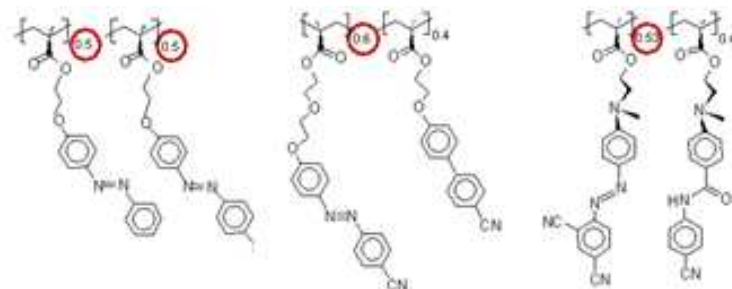
## AFM images of SRG at different stages of recording

Circular orthogonal grating



O.Kulikovska, K.Gharagozloo-Hubmann, J.Stumpe, B.D.Huey, V. Bliznyuk "Formation of Surface relief grating in polymers with pendant azobenzene chromophores as studied by AFM/UFM", Abstracts of the 5th Int. Conference Electronic Processes in Organic Materials, Kyiv, Ukraine, May 24–29, 2004, pp.206-207.

## LC polymers with azobenzene groups



**PI**

Tg=104°C

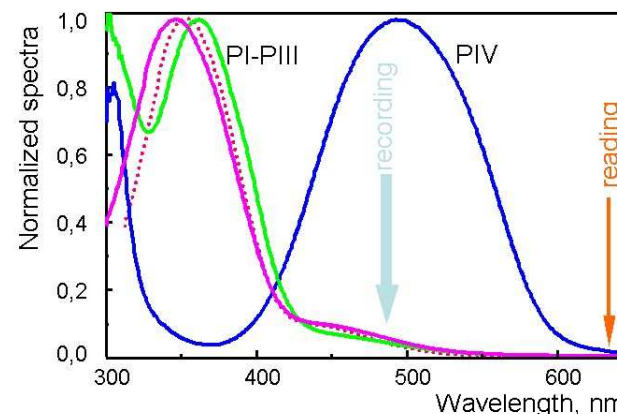
**PII**

Tg=77°C

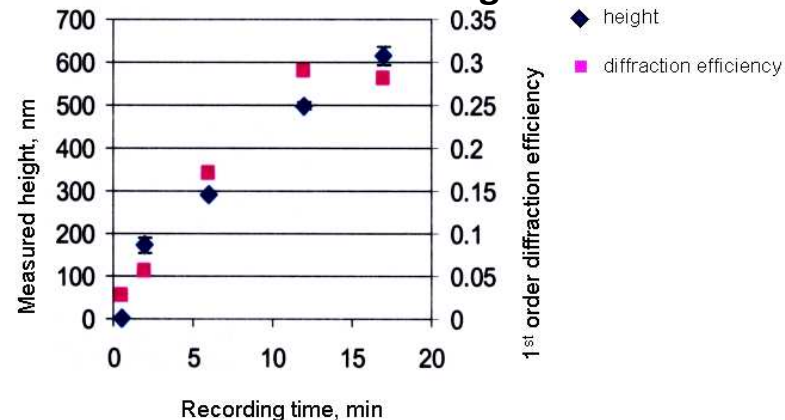
**PIV**

Tg=135°C

## Optical absorption spectra



## Kinetics of SRG recording



# Surface reconstruction and patterning in thin polymer films under E field

Recording scheme

