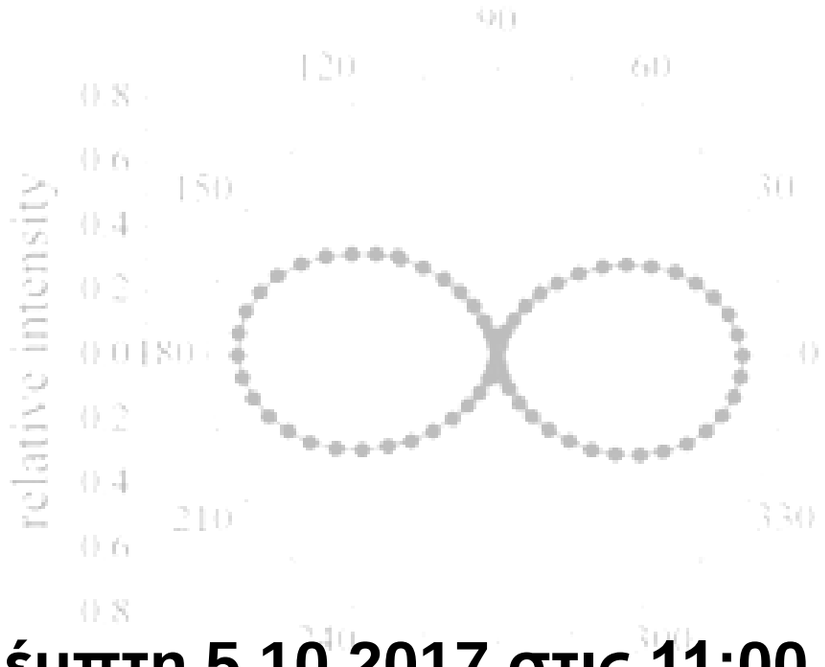

ΣΕΜΙΝΑΡΙΟ

Photosensitive polymers: basic principles and applications

Πέμπτη 5.10.2017 στις 11:00
Αίθουσα συνεδριάσεων
και τηλεδιασκέψεων
του Τμήματος Φυσικής
4ος όροφος

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Abstract

Photosensitive polymer materials undergoing certain changes in their optical properties upon light impact provide key functions of many modern optical devices and technologies. The direct connection between these photoinduced changes in polymers and their certain optical applications are discussed.

The peculiarities of polymer physical state are considered and standard optical parameters are defined for this type of materials. The basic photochemical reactions occurred in polymers are presented and their role in the amplitude recording and relives formation (photolithography) are shown. The principle of phase recording in polymers is demonstrated, the holographic type is given the most attention; the mechanism of holograms' formation in a certain polymer material is described. The effect of polarized light in polymers in the form of photoinduced volume and surface optical anisotropy is considered. Some specific applications of polymers developed by scientists in Belarusian State University concerning holographic multiplexing and LC-displays are presented.