Contribution ID: **106** Type: **Talk**

Effect of the embedded plasmonic gold nanorods on the interaction of high intensity laser irradiation with UDMA polymer –morphological and structural changes during crater formation

Wednesday 7 September 2022 17:00 (30 minutes)

The effects of gold nanorod doping and high intensity laser irradiation on the structural and the morphological changes of the urethane dimethacrylate (UDMA) based polymer systems were investigated and characterized using scanning electron microscopy (SEM) and Raman spectroscopy.
UDMA polymer samples with different concentration of gold nanoparticles were illuminated by single shot femtosecond laser pulses at different energies. The presence of the plasmonic nanoparticles induced significant changes in the surface- and the molecular structures compared to the undoped irradiated samples, which were used as reference.
The possible mechanisms of the surface topography formation and their features are demonstrated.

Is this abstract from experiment?

Yes

Name of experiment and experimental site

Wigner Research Centre for Phyics, NAPLIFE project, http://csernai.no/naplife

Is the speaker for that presentation defined?

Yes

Details

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Internet talk

No

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