

## Instantaneous photoinduced patterning of an azopolymer colloidal nanosphere assembly

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Auteur	Ortyl, Ewelina [1], Zielinska, Sonia [2], Barille, R�gis [3], Almohamed, Yasser [4], Nunzi, Jean-Michel [5]
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R�sum� en anglais	Colloidal azopolymer nanospheres assembled on a glass substrate were exposed to a single collimated laser beam. The combination of photo-fluidic elongation of the spherical colloids and light induced self-organization of the azopolymer film allows the quasi-instantaneous growth of a large amplitude surface relief grating. Pre-structuration of the sample with the nanosphere assembly supports faster creation of the spontaneous pattern. Confinement into the nanospheres provides exceptionally large modulation amplitude of the spontaneous relief. The method is amenable to any kind of photoactive azo-materials.
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### Liens

[1] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=2587>

[2] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=3021>

[3] <http://okina.univ-angers.fr/regis.barille/publications>

[4] <http://okina.univ-angers.fr/yalmohamed/publications>

- [5] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=2589>
- [6] <http://okina.univ-angers.fr/publications/ua15710>
- [7] <http://dx.doi.org/10.1364/OME.6.002925>
- [8] <https://www.osapublishing.org/ome/abstract.cfm?uri=ome-6-9-2925>

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