

Spontaneous formation of optically induced surface relief gratings

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Auteur	Leblond, Herv� [1], Barille, R�gis [2], Ahmadi-Kandjani, Sohrab [3], Nunzi, Jean-Michel [4], Ortyl, Ewelina [5], Kucharski, Stanislaw [6]
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R�sum� en anglais	We develop a model based on Fick's law of diffusion as a phenomenological description of the molecular motion, and on the coupled mode theory, to describe single-beam surface relief grating formation in azopolymer thin films. The model allows us to explain the mechanism of spontaneous patterning, and self-organization. It allows us to compute the surface relief profile and its evolution, with good agreement with experiments.
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