

Time dependent diffraction ring patterns in bromothymol blue dye doped PMMA film under irradiation with continuous wave green laser light

Original paper | Published: 31 May 2013

Volume 87, pages 1153–1156, (2013) [Cite this article](#)

[F. A. Al-Saymari](#), [H. A. Badran](#) , [A. Y. Al-Ahmad](#) & [C. A. Emshary](#)

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Abstract

Diffraction ring patterns are generated in bromothymol blue (BTB) doped poly methyl methacrylate (PMMA) film with the aid of visible light from a solid state laser of Gaussian distribution. Temporal evolution of patterns i.e. the number of rings increases as time elapse is observed. Based on the experimental findings, change in refractive index (Δn)