



Contribution ID: 44

Type: **Presentation**

Tunable Laser Based on Dye-Doped Polymer Gain Media Incorporating Nanoparticles: Novel Polymerization Method

The solid state dye laser active medium prepared from Pyrromethene-567 dissolved in ethylene glycol and added in a 2-hydroxyethyl-methacrylate methyl-methacrylate (volume mixture 1:1) copolymerized by gamma irradiation method (GIM). This new method of processability, to the best of our knowledge, is the fastest way in fabricating Polymeric Dye Laser samples so far. In the present work, a cheap 3 Hz, 5 ns of energy 1mJ @ 571 nm laser output produced from Polymeric Dye Laser active medium by applying a compact air-cooled Nd:YAG laser-pumping technique has been designed and constructed. The optical setup of the present system is extremely simple

Primary author: Dr AL-GHAMDI, Attieh A (Photonics Research Department Manager)

Co-author: Dr MAHROOS, Eiman M (Head of Physics Department,)

Presenter: Dr AL-GHAMDI, Attieh A (Photonics Research Department Manager)

Track Classification: Track C - Lasers, Optics and Spectroscopy