



Stable frequency doubling by all-optical poling in dye-doped polymer optical fibers

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Résumé en anglais	We present experimental studies of all-optical poling (AOP) in large-core dye-doped poly(methyl methacrylate) plastic optical fibers. We show that the confinement of light within the fiber core permits us to reach the upper limit of second harmonic generation achievable by AOP using repeated trans-cis isomerization. Quantification of the output power indicates self-seeding that can counteract relaxation of the orientation during readout of the induced nonlinearity.
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