11998-9

## **Nonlinear absorption investigation in imidazopyridines derivates** (Invited Paper)

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Hide Abstract –

Imidazopyridine derivatives are purine isosteres that display interesting optical properties and biological applications. Here one reports a spectroscopic investigation in six imidazopyridines derivatives with different chemical groups, leading to changes in the photophysical parameters and nonlinear optical properties. Fluorescence quantum yield, lifetime and anisotropy were performed to obtain information to interpret the nonlinear optical response. The two-photon absorption cross-section spectrum, measured by the Z-scan technique, was modeled by the sum-over-state approach. Higher 2PA cross-section was observed when two electron acceptor groups were added to the imidazopyridines core. Yet, the spectral position of higher excited states was show to contribute to the 2PA cross-section.