



## Degenerate multi-wave mixing inside a 4f imaging system in presence of nonlinear absorption

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Résumé en anglais	We report on multiwave mixing inside a 4f coherent imaging system using an I-scan configuration and taking into account nonlinear absorption inside materials. A simple mathematical calculation is presented in order to explain the nonlinearly induced diffracted beam distribution in the image plane. The influence of nonlinear absorption is discussed and a study on the sensitivity of the technique and experimental methodology for absorbing materials is proposed. We provide also a simple quadratic relation to characterize the cubic nonlinear refraction for absorbing media.
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### Liens

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