

Resonant Fluorescence Line Narrowing: a structural vision of the Erbium amplifier"

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Erbium Doped Fiber Amplifier (EDFA) is a key element for WDM (Wavelength-Division-Multiplexing) transmissions. One challenge is to increase the spectral amplification band. Knowledge of the structure of the emission band (Stark levels position, homogeneous and inhomogeneous broadening) allows to understand and increase the width of the transitions. Fluorescence Line Narrowing (FLN) was used to measure these parameters and to compare different hosts (oxides: silicate or tellurite, fluoride, sulfide).