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MULTIMODE GAUSSIAN DECOMPOSITION OF RAMAN GAIN PROFILE IN P2O5-DOPED SILICA FIBER

Spectroscopic analysis of the Raman gain profile in P2O5-doped single-mode fiber is resulted in our paper. Raman gain profile is obtained from the measured spontaneous spectrum of P2O5-doped silica fiber and it is presented in analytic form using 12 mode Gaussian components. Almost the exact fitting of the gain spectrum over the wide range of Stokes shifted frequencies from 0 to 1400 cm-1 may be useful for design of variety nonlinear fiber devices such as the Raman fiber lasers and amplifiers.

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