

Laserové centrum HiLASE Vás zve na seminář v anglickém jazyce:

Transparent Yb:YAG ceramics for laser sources, layered structures

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The presented work reports on Yb:YAG transparent ceramics composed of layers with different Yb doping produced by two different shaping methods: dry pressing of spray-dried powders and tape casting, all sintered under high vacuum. The selected geometry of materials was based on numerical simulations. Microstructure of the produced materials was characterized by SEM and EDX with a particular attention to the dopant content across the layers. The optical quality of produced ceramics is discussed in connection with the microstructure and laser emission results. A comparison of the two processing methods is provided with attention to optical uniformity and the diffusion zone between the single layers with different dopant.



Fig. 1: Layered YAG – 10%Yb:YAG ceramic

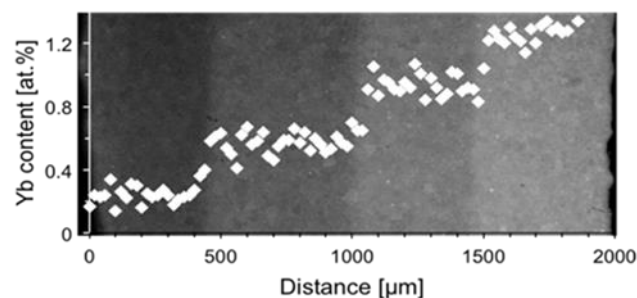


Fig. 2: Yb distribution in layered 1-3-5-7 Yb:YAG ceramic

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Kde: seminární místnost HiLASE