

The measured data were sufficient to evaluate the performance of the gain module suggested as thermal effects and energy-storage features, with a simple measurement scheme in terms of practical aspects. We verified ...

The energy storage capacity of large-aperture Nd:LuAG is investigated and compared with that of Nd:YAG. Energy amplification up to 10.3 J at 10 Hz is achieved, which, to the best of our knowledge ...

calculation, excitation densities, upconversion rates, heat generation, temperature profiles, and thermal lensing are calculated. Differences in thermal lens power between nonlasing and ...

The diode-pumped Nd:YAG laser has opened up a wider range of applications, thanks to its increased source stability, efficiency and lifetime, and reduced power consumption and size. Commercial Nd:YAG lasers with repetition rates higher ...

where  $E_{in}$  is the injected energy fluence,  $E_{sto}$  is the energy storage per unit volume, and  $l$  is the path length of the laser in the gain medium. According to Eq. 3, it is known ...

Abstract: We have experimentally measured the energy stored and the heat generated in flashlamp-pumped Nd:YAG and six different commercially available Nd-doped phosphate ...

Frantz-Nodvik approach for the calculation of the saturated amplification of 100 ps pulses in Nd:YAG laser system was in a good agreement with experimental data if saturation fluence ...

Diode-pumped Nd:YAG lasers for generation of blue light by frequency doubling ... The influence of energy-transfer upconversion (ETU) is a detrimental effect in Nd- ... The results of the ...

We have experimentally measured the energy stored and the heat generated in flashlamp-pumped Nd:YAG and six different commercially available Nd-doped phosphate glasses. We ...

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