

Er³⁺-doped tellurite micro-structured fiber: Laser generation and optical gain (Conference Paper)

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Abstract

Optical results concerning the generation of laser and optical gain by using an Er³⁺-doped tellurite micro-structured fiber are reported for the first time. For this purpose a scheme that consist of two 980 nm diode pump lasers (simultaneously in the co-propagating and the counter-propagating directions) and short Er³⁺-doped tellurite micro-structured fibers (fabricated by using the stack-and-draw technique and a soft glass drawing tower) was used. The laser produced here was obtained within the range 1530 to 1565 nm, and the maximum optical gain obtained was higher than 8 dB. © 2012 SPIE.

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