

High Average Power Nonlinear Pulse Compression in a Gas-filled Multi-pass Cell at 2 μm Wavelength

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We present the post compression of a thulium-doped fiber laser output in a gas-filled multi-pass cell, delivering 51W average power, 35fs pulse duration at 300kHz repetition rate centered at 1940nm wavelength. To the best of our knowledge, this is the highest average-power multi-pass cell post compression in the short-wave-infrared reported.

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