

Generation of high energy square-wave pulses in all anomalous dispersion Er:Yb passive mode locked fiber ring laser

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Auteur	Semaan, Georges [1], Ben Braham, Fatma [2], Salhi, Mohamed [3], Meng, Yichang [4], Bahloul, Faouzi [5], Sanchez, François [6]
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Résumé en anglais	We have experimentally demonstrated square pulses emission from a co-doped Er:Yb double-clad fiber laser operating in anomalous dispersion DSR regime using the nonlinear polarization evolution technique. Stable mode-locked pulses have a repetition rate of 373 kHz with 2.27 µJ energy per pulse under a pumping power of 30 W in cavity. With the increase of pump power, both the duration and the energy of the output square pulses broaden. The experimental results demonstrate that the passively mode-locked fiber laser operating in the anomalous regime can also realize a high-energy pulse, which is different from the conventional low-energy soliton pulse.
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Liens

- [1] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=15653>
- [2] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=39603>

- [3] <http://okina.univ-angers.fr/m.salhi/publications>
- [4] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=9350>
- [5] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=9358>
- [6] <http://okina.univ-angers.fr/francois.sanchez/publications>
- [7] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=29361>
- [8] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=9764>
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- [10] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=29360>
- [11] <http://okina.univ-angers.fr/publications/ua20244>
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