

## Pavel Peterka publications

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### List of journal publications

- [1] P. Peterka, P. Koška, and J. Čtyroký, "Reflectivity of superimposed Bragg gratings induced by longitudinal mode instabilities in fiber lasers," *IEEE J. Sel. Topics Quantum Electron.* **24**, 0902608 (2018). <http://doi.org/10.1109/jstqe.2018.2806084>
- [2] P. Navratil, P. Peterka, P. Vojtisek, I. Kasik, J. Aubrecht, P. Honzatko, and V. Kubecek, "Self-swept erbium fiber laser around 1.56 μm," *Opto-Electron. Rev.* **26**, 29-34 (2018). <https://doi.org/10.1016/j.opelre.2017.11.004>
- [3] P. Peterka, P. Honzátko, P. Koška, F. Todorov, J. Aubrecht, P. Navrátil, O. Podrazký, I. Kašík, and J. Čtyroký, "Transient fiber Bragg gratings in self-swept fiber lasers," *Fine Mechanics and Optics* **64**, 108-114 (2017), in Czech.
- [4] P. Navratil, P. Peterka, P. Honzatko, and V. Kubecek, "Reverse spontaneous laser line sweeping in ytterbium fiber laser," *Laser Phys. Lett.* **14**, 035102 (2017). <https://doi.org/10.1088/1612-202x/aa548d>
- [5] J. Aubrecht, P. Peterka, P. Koska, O. Podrazky, F. Todorov, P. Honzatko, and I. Kasik, "Self-swept holmium fiber laser near 2100 nm," *Opt. Express* **25**, 4120-4125 (2017). <https://doi.org/10.1364/Oe.25.004120>
- [6] J. Sotor, M. Pawliszewska, G. Sobon, P. Kaczmarek, A. Przewolka, I. Pasternak, J. Cajzl, P. Peterka, P. Honzatko, I. Kasik, W. Strupinski, and K. Abramski, "All-fiber Ho-doped mode-locked oscillator based on a graphene saturable absorber," *Opt. Lett.* **41**, 2592-2595 (2016). <https://doi.org/10.1364/OI.41.002592>
- [7] M. Pisarik, P. Peterka, J. Aubrecht, J. Cajzl, A. Benda, D. Mares, F. Todorov, O. Podrazky, P. Honzatko, and I. Kasik, "Thulium-doped fibre broadband source for spectral region near 2 micrometers," *Opto-Electron. Rev.* **24**, 223-231 (2016). <https://doi.org/10.1515/oere-2016-0022>
- [8] P. Peterka, P. Honzatko, P. Koska, F. Todorov, J. Aubrecht, O. Podrazky, and I. Kasik, "Reflectivity of transient Bragg reflection gratings in fiber laser with laser-wavelength self-sweeping: erratum," *Opt. Express* **24**, 16222-16223 (2016). <https://doi.org/10.1364/oe.24.016222>
- [9] P. Koska, P. Peterka, and V. Doya, "Numerical modeling of pump absorption in coiled and twisted double-clad fibers," *IEEE J Sel. Topics Quantum Electron.* **22**, 4401508 (2016). <https://doi.org/10.1109/Jstqe.2015.2490100>
- [10] P. Koska, P. Peterka, J. Aubrecht, O. Podrazky, F. Todorov, M. Becker, Y. Baravets, P. Honzatko, and I. Kasik, "Enhanced pump absorption efficiency in coiled and twisted double-clad thulium-doped fibers," *Opt. Express* **24**, 102-107 (2016). <https://doi.org/10.1364/oe.24.000102>
- [11] I. Kasik, P. Peterka, J. Mrazek, and P. Honzatko, "Silica optical fibers doped with nanoparticles for fiber lasers and broadband sources," *Curr. Nanosci.* **12**, 277-290 (2016). <https://doi.org/10.2174/1573413711666150624170638>
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- [13] P. Peterka, P. Honzátko, and I. Kašík, "Fiber lasers – new tools for medicine and industry," *Czechoslovak J. Phys.* **65**, 389-394 (2015), in Czech.
- [14] P. Koska and P. Peterka, "Numerical analysis of pump propagation and absorption in specially tailored double-clad rare-earth doped fiber," *Opt. Quantum Electron.* **47**, 3181-3191 (2015). <https://doi.org/10.1007/s11082-015-0194-2>

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- [19] I. Kasik, O. Podrazky, J. Mrazek, J. Cajzl, J. Aubrecht, J. Probostova, P. Peterka, P. Honzatko, and A. Dhar, "Erbium and  $\text{Al}_2\text{O}_3$  nanocrystals-doped silica optical fibers," *B. Pol. Acad. Sci.-Tech.* **62**, 641-646 (2014). <https://doi.org/10.2478/bpasts-2014-0070>
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## Patents, popularization articles, book chapter, and other publications

- [1] P. Peterka, P. Koška, O. Podrazký, V. Matějec, and I. Kašík, "Amplifying module, method of making the same, and cladding pumped optical device incorporating the module," CZ Patent 305888, issued 9 March 2016, filed 5 Feb. 2015.
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- [13] P. Peterka, "Modelling and measurement of active optical fibers," diploma thesis, Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University, Prague, 1993, in Czech.

## List of conference papers

- [1] O. Podrazký, P. Peterka, S. Vytykáčová, J. Proboštová, M. Kuneš, O. Lyutakov, E. Ceci-Ginistrelli, D. Pugliese, N. G. Boetti, D. Janner, and D. Milanese, "Biomedical and sensing applications of a multi-mode biodegradable phosphate-based optical fiber," in Proc. SPIE **10488**, *SPIE Photonics West: Optical Fibers and Sensors for Medical Diagnostics and Treatment Applications XVIII*, San Francisco, USA, 27 January–1 February 2018, p. 104880H.
- [2] R. Dalidet, P. Peterka, V. Doya, J. Aubrecht, and P. Koška, "Pump absorption in coiled and twisted double-clad hexagonal fiber: effect of launching conditions and core location," in Proc. SPIE **10512**, *SPIE Photonics West: Fiber Lasers XV*, San Francisco, USA, 27 January–1 February 2018, p. 105122P.

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- [5] P. Koska, P. Peterka, V. Doya, J. Aubrecht, I. Kasik, and O. Podrazky, "Enhancement of pump absorption efficiency by bending and twisting of double clad rare earth doped fibers (Conference Presentation) [Invited]," in Proc. SPIE **10232**, *SPIE Optics+Optoelectronics: Micro-Structured and Specialty Optical Fibres V*, Prague, Czech Republic, 24–27 April 2017, p. 102320E.
- [6] P. Koska, V. Doya, and P. Peterka, "Modal-field spectra analysis of pump absorption efficiency in double-clad rare-earth doped fibers (Conference Presentation)," in Proc. SPIE **10083**, *SPIE Photonics West: Fiber Lasers XIV*, San Francisco, USA, 28 January–2 February 2017, p. 100830U.
- [7] M. Kamradek, J. Aubrecht, P. Peterka, O. Podrazky, P. Honzatko, J. Cajzl, J. Mrazek, V. Kubeczek, and I. Kasik, "Spectral properties of thulium doped optical fibers for fiber lasers around 2 micrometers," in Proc. SPIE **10232**, *SPIE Optics+Optoelectronics: Micro-Structured and Specialty Optical Fibres V*, 24–27 April 2017, p. 1023205.
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- [9] J. Cajzl, P. Peterka, P. Honzatko, O. Podrazky, M. Kamradek, J. Aubrecht, J. Probostova, and I. Kasik, "Evaluation of energy transfer coefficients in Tm-doped fibers for fiber lasers," in Proc. SPIE **10603**, *Photonics Prague*, Prague, Czech Republic, 28-30 Aug. 2017, p. 106030G.
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- [17] P. Peterka, P. Honzatko, P. Koska, O. Podrazky, and I. Kasik, "Transient-fiber-Bragg grating spectra in self-swept Fabry-Perot fiber lasers," in Proc. SPIE **9344**, *SPIE Photonics West: Fiber Lasers XII*, San Francisco, USA, 7-12 Feb. 2015, p. 934423.
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