

# Publikační list

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## Publikační činnost vztahující se k disertační práci

### Recenzované publikace

- [A1] M. Frank, M. Jelínek, D. Vyhlídal, V. Kubeček, L. I. Ivleva, P. G. Zverev, and S. N. Smetanin, „Raman laser with long and short raman shifts and 12-fold pulse shortening down to 3 ps at 1227 nm,“ *Laser Phys.*, vol. 28, no. 025403, pp. 1-5, 2018. **(Počet citací: 8)**
- [A2] M. Frank, S. N. Smetanin, M. Jelínek, D. Vyhlídal, L. I. I. P. G. Zverev, and V. Kubeček, „Highly efficient picosecond all-solid-state raman laser at 1179 and 1227 nm on single and combined raman lines in a BaWO<sub>4</sub> crystal,“ *Opt. Lett.*, vol. 43, no. 11, pp. 2527-2530, 2018. **(Počet citací: 12)**
- [A3] M. Frank, S. N. Smetanin, M. Jelínek, D. Vyhlídal, A. A. Kopalkin, V. E. Shukshin, L. I. Ivleva, P. G. Zverev, and V. Kubeček, „Synchronously-pumped all-solid-state SrMoO<sub>4</sub> raman laser generating at combined vibrational raman modes with 26-fold pulse shortening down to 1.4 ps at 1220 nm,“ *Optics and Laser Technol.*, vol. 111, pp. 129-133, 2019. **(Počet citací: 6)**
- [A4] M. Frank, S. N. Smetanin, M. Jelínek, D. Vyhlídal, V. E. Shukshin, L. I. Ivleva, P. G. Zverev, and V. Kubeček, „Efficient synchronously-pumped all-solid-state raman laser at 1178 and 1227 nm on stretching and bending anionic group vibrations in a SrWO<sub>4</sub> crystal with pulse shortening down to 1.4 ps,“ *Optics and Laser Technol.*, vol. 119, no. 105660, pp. 1-7, 2019. **(Počet citací: 2)**
- [A5] M. Frank, S. N. Smetanin, M. Jelínek, D. Vyhlídal, V. E. Shukshin, L. I. Ivleva, E. E. Dunaeva, I. S. Voronina, P. G. Zverev, and V. Kubeček, „Stimulated raman scattering in alkali-earth tungstate and molybdate crystals at both stretching and bending raman modes under synchronous picosecond pumping with multiple pulse shortening down to 1 ps,“ *Crystals*, vol. 9, no. 167, pp. 1-20, 2019. **(Počet citací: 0)**
- [A6] M. Frank, S. N. Smetanin, M. Jelínek, D. Vyhlídal, V. E. Shukshin, P. G. Zverev, and V. Kubeček, „860 fs GdVO<sub>4</sub> raman laser at 1228 nm pumped by 36 ps, 1063 nm laser,“ *Laser Phys. Lett.*, vol. 16, no. 085401, pp. 1-6, 2019. **(Počet citací: 0)**

### Ostatní publikace

- [A7] M. Frank, M. Jelínek, and V. Kubeček, „Optimization of passively mode-locked quasicontinuously diode-pumped Nd:GdVO<sub>4</sub> laser in bounce geometry,“ *Proc. SPIE*, vol. 9450, no. 945008, pp. 1-6, 2015.
- [A8] M. Frank, M. Jelínek, D. Vyhlídal, and V. Kubeček, „Optimization of passively mode-locked Nd:GdVO<sub>4</sub> laser with the selectable pulse duration 15-70 ps,“ *Proc. SPIE*, vol. 10142, no. 101421E, pp. 1-6, 2016.
- [A9] M. Frank, M. Jelínek, V. Kubeček, L. I. Ivleva, P. G. Zverev, and S. Smetanin, „All-solid state, synchronously pumped, ultrafast BaWO<sub>4</sub> raman laser with long and short raman shifts generating at 1180, 1225, and 1323 nm,“ *Proc. SPIE*, vol. 10603, no. 106030Y, pp. 1-6, 2017.
- [A10] M. Frank, M. Jelínek, V. Kubeček, L. I. Ivleva, and S. N. Smetanin, „Multiwavelength, all solid-state, synchronously pumped, ultrafast BaWO<sub>4</sub> raman laser with long and short raman shifts and 12-times pulse shortening down to 3 ps,“ *Laser Congress 2017(ASSL, LAC)*, p. paper JTh2A.25, 2017.
- [A11] M. Frank, M. Jelínek, V. Kubeček, L. Ivleva, and S. Smetanin, „Synchronously pumped BaWO<sub>4</sub> raman laser with long and short frequency shifts with the 69% slope efficiency at 1179 nm or 3 ps pulses at 1227 nm,“ *Europhoton 2018*, p. paper TuP.38, 2018.

- [A12] S. Smetanin, A. A. Kopalkin, V. E. Shukshin, L. I. Ivleva, P. G. Zverev, M. Frank, M. Jelínek, D. Vyhlídal, and V. Kubeček, „Spontaneous and stimulated raman scattering in tungstate and molybdate crystals at both high and low frequency anionic group vibrations,“ Proc. 2018 International Conference Laser Optics (ICLO), p. 334, 2018.
- [A13] M. Frank, S. N. Smetanin, M. Jelínek, D. Vyhlídal, V. E. Shukshin, L. I. Ivleva, P. G. Zverev, and V. Kubeček, „Efficient synchronously-pumped allsolid-state SrWO<sub>4</sub> raman laser at 1178 and 1227 nm on single and combined raman modes with 26-fold pulse shortening down to 1.4 ps,“ Proc. SPIE, vol. 11026, no. 1102618, pp. 1-7, 2019.
- [A14] M. Frank, S. N. Smetanin, M. Jelínek, D. Vyhlídal, V. E. Shukshin, P. G. Zverev, and V. Kubeček, „Synchronously-pumped all-solid-state raman lasers based on YVO<sub>4</sub> and GdVO<sub>4</sub> crystals with pulse shortening by higher than 30 times down to 850 fs,“ Proc. SPIE, vol. 11026, no. 1102616, pp. 1-6, 2019.
- [A15] S. Smetanin, M. Frank, M. Jelínek, D. Vyhlídal, V. Shukshin, L. Ivleva, E. Dunaeva, I. Voronina, P. Zverev, and V. Kubeček, „Synchronously pumped crystalline raman lasers with combined frequency shift,“ Advance Laser Technologies 2019, pp. ALT19-0105, 2019.
- [A16] M. Frank, S. Smetanin, M. Jelínek, D. Vyhlídal, V. Shukshin, P. Zverev, and V. Kubeček, „Laser output radiation characteristics controlled by the GdVO<sub>4</sub> crystal length in the extracavity synchronously pumped raman laser with combined raman shift resulting in generation of 860 fs pulses at 1228 nm,“ Laser Congress 2019(ASSL, LAC), p. paper JTh3A.32, 2019.
- [A17] M. Frank, S. N. Smetanin, M. Jelínek, D. Vyhlídal, V. E. Shukshin, P. G. Zverev, and V. Kubeček, „860-femtosecond synchronously-pumped GdVO<sub>4</sub> raman laser at 1228 nm with 36-picosecond 1063 nm pumping,“ CLEO/Europe-EQEC 2019, p. 8872365, 2019.
- [A18] S. Smetanin, M. Frank, M. Jelínek, D. Vyhlídal, L. Ivleva, E. Dunaeva, I. Voronina, V. Shukshin, P. Zverev, and V. Kubeček, „Synchronously-pumped picosecond raman laser at 1169 and 1222 nm with single and combined raman mode shifts in a Ca<sub>3</sub>(VO<sub>4</sub>)<sub>2</sub> crystal,“ CLEO/Europe-EQEC 2019, p. 8872600, 2019.
- [A19] M. Frank, S. Smetanin, M. Jelínek, D. Vyhlídal, L. Ivleva, E. Dunaeva, I. Voronina, V. Shukshin, P. Zverev, and V. Kubeček, „Synchronously pumped raman lasers based on yttrium, gadolinium, and calcium orthovanadate crystals generating at combined stretching and bending raman modes,“ NLO 2019, p. paper NTu4A.34, 2019.

## Publikační činnost mimo disertační práci

### Recenzované publikace

- [B1] V. Matějec, O. Podrazký, I. Kašík, J. Aubrecht, M. Frank, M. Jelínek, and V. Kubeček, „Preparation and characterization of bragg fibers for delivery of laser radiation at 1064 nm,“ Radioengineering, vol. 22, no. 1, pp. 346-351, 2013. **(Počet citací: 5)**
- [B2] M. Frank, M. Jelínek, V. Kubeček, I. Kašík, O. Podrazký, and V. Matějec, „Air and silica core bragg fibers for radiation delivery in the wavelength range 0.6-1.5 μm,“ Optical Fiber Technology, vol. 31, pp. 36-41, 2016. **(Počet citací: 4)**
- [B3] M. Frank, M. Jelínek, V. Kubeček, I. Kašík, O. Podrazký, and V. Matějec, „Scanning cutback method for characterization of bragg fibers,“ J. of Lightwave Technology, vol. 36, no. 11, pp. 2271-2277, 2018. **(Počet citací: 1)**

### Ostatní publikace

- [B4] V. Matějec, O. Podrazký, I. Kašík, J. Aubrecht, M. Frank, M. Jelínek, and V. Kubeček, „Preparation and characterization of bragg fibers with air cores for transfer of laser radiation,“ Proc. SPIE, vol. 8775, no. 877508, pp. 1-11, 2013.

- [B5] M. Jelínek, M. Frank, V. Kubeček, V. Matějec, I. Kašík, and O. Podrazký, „Air core bragg fibers for delivery of near-infrared laser radiation,“ Proc. SPIE, vol. 9441, no. 94411B, pp. 1-8, 2014.
- [B6] V. Matějec, O. Podrazký, I. Kašík, M. Frank, M. Jelínek, and V. Kubeček, „Comparison of characteristics of bragg fibers with silica and air cores,“ Proc. SPIE, vol. 9450, no. 94500Y, pp. 1-8, 2015.
- [B7] V. Matějec, O. Podrazký, I. Kašík, M. Frank, M. Jelínek, and V. Kubeček, „Transmission of red-laser radiation by using bragg fibers with air cores,“ Proc. SPIE, vol. 9507, no. 95070Q, pp. 1-7, 2015.
- [B8] M. Frank, M. Jelínek, V. Kubeček, I. Kašík, O. Podrazký, and V. Matějec, „Delivery of 1.9 $\mu$ m laser radiation using air-core bragg fibers,“ Proc. SPIE, vol. 10142, no. 101421D, pp. 1-9, 2016.
- [B9] M. Frank, M. Jelínek, V. Kubeček, V. Matějec, O. Podrazký, and I. Kašík, „Measurement of attenuation coefficient of core and cladding modes in bragg fiber,“ Proc. SPIE, vol. 10603, no. 10603Q, pp. 1-6, 2017.
- [B10] J. Aubrecht, P. Peterka, P. Koška, P. Honzátko, M. Jelínek, M. Kamrádek, M. Frank, V. Kubeček, and I. Kašík, „Spontaneous laser-line sweeping in ho-doped fiber laser,“ Proc. SPIE, vol. 10083, no. 10083V, pp. 1-6, 2017.
- [B11] V. Matějec, J. Pedliková, I. Barto\_n, M. Frank, M. Jelínek, and V. Kubeček, „Capillary optical fiber with a bragg mirror of arsenic sulfide and polymers applied onto the inner capillary wall,“ Proc. SPIE, vol. 11029, no. 1102910, pp. 1-7, 2019.