WATT-LEVEL, BROADBAND MID-INFRARED SUPERCONTINUUM GENERATION IN SELECTED SOFT-GLASS FIBERS - RECENT WORKS AT MUT

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Recent results on high-power supercontinuum generation in selected soft-glass fibers acheived at the Institute of Optoelectronics (Military University of Technology) will be prasented. The works are mainly focused on achieving high spectral flatness as well as very good power distribution towards the long wavelengths, while keeping the output time-averaged power at the level of over 1 W. To this aim, different home-built pump sources (e.g. mode-locked fiber lasers and amplifiers, gain-switched fiber lasers and amplifiers) and and some selceted nonlinear fibers (e.g. fluorozirconate, fluoroindate) were used for tests. Such light sources can find applications in a lot of important areas, like stand-off detection, directional countermeasure, and medicine. For these applications, the magnitude of bandwidth, spectral flatness as well as the level of output power together with efficient power distribution towards the mid-IR are very important factors.

Presentation - 15 minutes