

BROADBAND SCATTERING
OF LASER LIGHT BY β -BaB₂O₄ CRYSTAL
PUMPED WITH FEMTOSECOND LASER PULSES

*O.O. Smyrnov, D.P. Kudryavtzev, Ju.S. Oseledchik,
A.L. Prosvirnin*

Zaporizhzhya State Engineering Academy
(226, Lenin Av., Zaporizhzhya 69006, Ukraine;
e-mail: *asmiralex@yandex.ru*)

S u m m a r y

In the present work, the effect of broadband radiation generation in β -BaB₂O₄ (BBO) crystals of various orientations pumped with 70-fs pulses of the second harmonic ($\lambda_{sh} = 390.9$ nm) of a Ti:Sa laser, is investigated. Nonlinear effects, which were observed simultaneously and which lead to the broadband light generation, are interpreted on the basis of experimental data as spontaneous parametric and stimulated Raman scattering of light in the impulsive and highly transient regimes.