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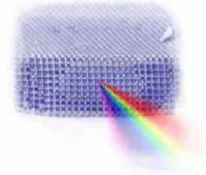
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Book of Abstracts
13th Photonics Workshop
(Conference)



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Book of abstracts

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Multiphoton ionization of sodium by intense femtosecond laser pulses in the near IR domain

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Abstract. The multiphoton ionization of sodium by the laser pulses of 800 nm wavelength and 57 fs FWHM is studied for laser peak intensities in the range of a few TW/cm². Photoelectron momentum distributions and the energy spectra are determined numerically by solving the time dependent Schrödinger equation. The calculated spectra agree well with the spectra obtained experimentally by Hart et al. [1]. It is shown that the spectral peaks related to the Freeman resonances have contributions from different ionization channels which are characterized by different photoelectron energies and different symmetries of released photoelectron wave-packets.

REFERENCES

[1] N. A. Hart, J. Strohaber et al., *Phys.Rev.A* **93** (2016), 063426