



# High-Intensity X-rays Interaction with Matter: Processes in Plasmas, Clusters, Molecules, and Solids

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## Bibliographical Information:

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## Abstract:

Filling the need for a book bridging the effect of matter on X-ray radiation and the interaction of x-rays with plasmas, this monograph provides comprehensive coverage of the topic. As such, it presents and explains such powerful new X-ray sources as X-ray free-electron lasers, as well as short pulse interactions with solids, clusters, molecules, and plasmas, and X-ray matter interactions as a diagnostic tool.

Equally useful for researchers and practitioners working in the field.

From the Content:

- ) Atomic Physics
- ) Scattering of X-ray Radiation
- ) Electromagnetic Wave Propagation
- ) Electron Dynamics
- ) Short X-ray Pulses
- ) High-intensity Effects Irradiated materials
- ) Simulation of X-ray Matter Interaction
- ) Examples of X-ray Matter Interaction

## [Editorial Reviews](#)

### [Review](#)

"Filling the need for a book bridging the effect of matter on X-ray radiation and the interaction of X-rays with plasmas, this monograph provides comprehensive coverage of the topic ... Equally useful for researchers and practitioners working in the field." (ETDE Energy database, 2011)

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