

Channeling 2018



ID contributo: 58

Tipo: Oral presentation

Interaction of Channeled X rays, Coherent Excitation of Fluorescence and Interference Phenomena of Transmitted Radiation at the Exit of Microchannel Plates

giovedì 27 settembre 2018 12:50 (15 minuti)

We present here investigation on x-ray fluorescence excited inside hollow microcapillaries which propagates inside them and this phenomenon corresponds to the process of channeling of x-ray fluorescent radiation through a waveguide. The propagation of radiation through microcapillaries is a complex wave process depending by the energy of the radiation and the characteristics of the optical system. We have found experimentally and simulated theoretically that the coherently excited Si L-fluorescence mainly propagates in the direction close to the axis of the microchannels.

Autore principale: Dr. MAZURITSKIY, Mikhail (Southern Federal University)

Coautore: Prof. LERER, Alexander (Southern Federal University); Dr. SOKOLOV, Andrey (Helmholtz-Zentrum Berlin, BESSY-II); Dr. MARCELLI, Augusto (LNF); Dr. SERTSU, Mewael (Helmholtz-Zentrum Berlin, BESSY-II); Prof. KULOV, Soslan (Vladikavkaz Technological Center "BASPIK"); Prof. DABAGOV, Sultan (LNF)

Relatore: Dr. MAZURITSKIY, Mikhail (Southern Federal University)

Classifica Sessioni: S3.1 X-Rays/Neutrons/Atoms Channeling