

NATO Project SfP-977982 "X-ray Generator Based on Compton Backscattering"

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In National Science Center «Kharkov Institute of Physics &Technology» the design and development of a X-ray generator on the base of Compton back scattering **NESTOR** (**N**ew **E**lectron **STO**rage **R**ing) using existed electron storage ring N-100 is one of the promising and priority direction which allows expending of existing accelerator park for experimental investigations in biology and medicine, physics and chemistry, geology and ecology.

The NESTOR X-ray source project is developing within international collaboration using NATO “Science for Piece” program grant SfP-977982. NSC«KIPT» (Ukraine), SSRL (USA), TUE (the Netherlands), LPI (Russia) are the grant participants.

The history and the results of multi-year project of NATO, the basic parameters of x-ray generator NESTOR as well as the possibility of using it in nanotechnology are presented.