



Contribution ID: 61

Type: **not specified**

Parametric gamma-radiation: parametric x-rays from relativistic electrons passing through a Mossbauer crystal

Wednesday, 26 September 2012 12:20 (15 minutes)

The possibility to apply PXR radiation mechanism to generate resonant gamma-rays for the Mossbauer experiments –parametric gamma-radiation (PGR) –was suggested quite ago, but experimental conditions for its observation were not discussed before. Besides, the interference conditioned by the electron and nuclear contributions to PGR was not taken into account in the previous consideration. As a result, no any experiment with Mossbauer crystal target was performed. In the current contribution we analyze PGR mechanism in more detail.

Primary author: Prof. LOBKO, Alexander (Institute for Nuclear Problems, Belarus State University)

Co-authors: Mr AHMADI, Abbas (Belarusian State University, Minsk, Belarus); Prof. FERANCHUK, Iliya (Belarusian State University, Minsk, Belarus)

Presenter: Prof. LOBKO, Alexander (Institute for Nuclear Problems, Belarus State University)

Session Classification: S2-S5 Nouvel Sources: PXR&TR&FEL&Plasma

Track Classification: Novel sources: PXR&TR&FEL&Plasma