Contribution ID: **155** Type: **Poster**

Hard X-rays with controlled parameters

Thursday, 29 September 2016 18:40 (1 hour)

In order to gain control over hard X-ray (over 30 keV), X-ray diffraction in Laue geometry (over 30 keV) from a single crystal of quartz influenced by the temperature gradient has been considered. It has been experimentally proved that the intensity of the reflected beam can be increased up to several orders if the X-ray energies are 30 keV and 40 keV for reflecting atomic planes (10-11) depending on the value of the temperature gradient. It has been shown that with an increase in the temperature gradient the focus becomes closer to the crystal, the focal spot narrows in the diffraction plane and the integral intensity increases tenfold.

Primary author: Dr KOCHARYAN, Vahan (Institute of Applied Problems of Physics of NAS RA, 0014, Hr. Nersisyan str. 25, Yerevan, Armenia. National Research Tomsk Polytechnic University 634050, Lenin Avenue 30, Tomsk, Russia.)

Presenter: Dr KOCHARYAN, Vahan (Institute of Applied Problems of Physics of NAS RA, 0014, Hr. Nersisyan str. 25, Yerevan, Armenia. National Research Tomsk Polytechnic University 634050, Lenin Avenue 30, Tomsk, Russia.)

Session Classification: PS3: Poster session