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PS3-19 Influence of Grains Size on Interaction Processes of Fast Particles and Quanta with Mosaic Crystals

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It is well known that microstructure of the crystals essentially influence on interaction processes of fast particles and quanta. On the base of approaches developed for description of X-ray diffraction in mosaic crystals type a and b influence of crystals microstructures on emission observed characteristics such as parametric X-ray radiation and real photons of bremsstrahlung and transition radiation diffraction is analyzed. Influence of grains size and their distribution on the parameters of mosaic crystals measured is discussed. The possibility of grains size estimation and their distribution by means measurements results is analyzed. Possibility of the grains size effect manifestation in experiments on coherent pair production in mosaic crystals of pyrolytic graphite with grain size 1-5 micron is discussed.

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