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Capillary Optics. Modeling of Numerous Transformations of X-rays

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Capillary optics is one of the best tools for controlling X-ray radiation. It allows handling the X-ray beams, which pass through many materials practically without breaking and much loss of intensity, with the correct selection of the parameters of the optics and the source of radiation.

In order to properly calculate the experiment as well as to define optimized optics it is necessary to build mathematical models that reproduce these processes.

Presented research is devoted to computer modeling of X-ray transmission through and shaping capillary optical systems (single capillary and multi capillary, polycapillary, ones). These studies make it possible to obtain a qualitative picture of the transformations that the radiation experiences during the passage through various capillary lenses.

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