A Three-block X-Ray Monolite Resonator

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An X-Ray Resonator for Silicon single crystal (440, 404) configuration's NiKα_2 –radiation is offered and principally carried out. Asymmetric reflections (where reflecting planes consist 30^0 angle with block planes) were used. In contrast to [1], the incident beam enters the resonator and undergoes a closed cycle only through Bragg's reflections. The devise was moving by a scanning mechanism perpendicular to the incident beam, and it made possible to take out of the resonator the beams reflected 1,2,3…times and detect them (Fig. 1). It is obvious that there exists a position in which the beam stays in the resonator, providing a closed cycle (Fig. 2). The devise will give its best results in the case of synchrotron radiation, for in this case it is possible to choose a precise wavelength

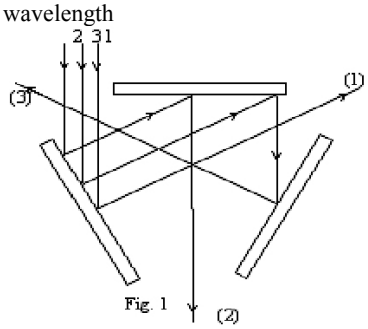

Fig. 1

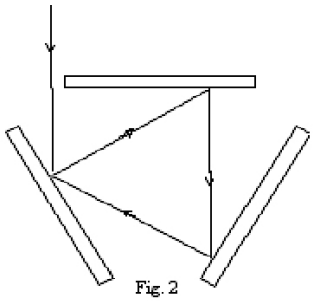
Fig. 2

[1] Deslattes R.D., *Appl. Phys. Letters*,1968, **12**, 133.

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