

## Egorov's Type X-ray Waveguide

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As it was stated by Egorovs [1], planar x-ray waveguides with air slit can be used for the production of high intensity guided beams, those size in one dimension is of several microns. To verify it, planar x-ray waveguide has been fabricated and a series of measurements was done. The waveguide structure is shown in insert to Fig1. Incident x-ray beam (Mo target, 30 kV, 5 mA), passed through the vertical slitt (0.15 mm), was directed into the waveguide inlet. A horizontal slit of 0.15 mm was mounted in front of detector, measuring the guided beam intensity. A distance between waveguide exit and detector was 15 mm. A guided beam of high intensity ( $1.6 \times 10^6$  total counts per 100s) was recorded at the exit of the particular waveguide (Fig.1).

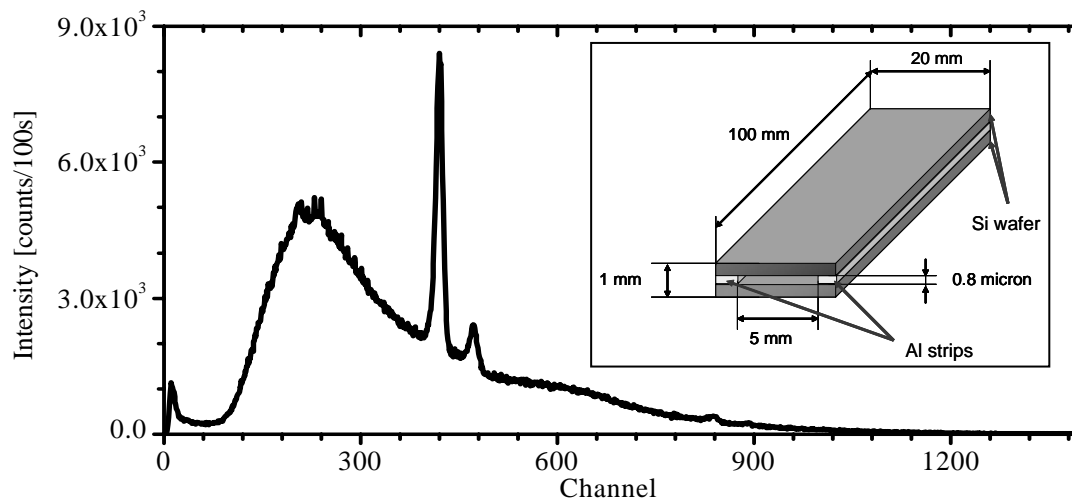


Figure 1. Spectrum of the x-ray beam, guided by Egorov's type planar x-ray waveguide. Guiding element structure is shown in insert.

### References

1. VK Egorov and EV Egorov, Spectrochim Acta B, **59**, 1049-1069, 2004.