X-ray reflection imaging of inclined and obliquely illuminated objects

I.A. Artyukov, A.S. Busarov, N.L. Popov, A.V. Vinogradov

Lebedev Physical Institute, Moscow, Russia

E-mail: nick.l.popov@gmail.com

It is well known that contrast high resolution images are usually produced with normal incidence optics and samples observed normally to their surface. However a number of recent X-ray experiments from 0.1 to 10 kev demonstrate a quest for imaging of slanted objects and the objects illuminated at grazing angles. A survey of previous studies, theoretical consideration, simulation and application prospects of this new imaging technology is presented.