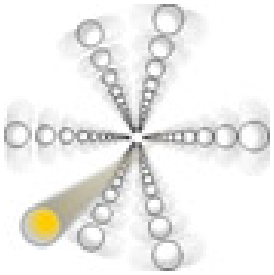

Contribution ID: **103** Type: **not specified**

X-Ray Free-Electron Laser Based on Irregular Microundulator

The radiation characteristics of the electron bunch spontaneous radiation are obtained in irregular microundulator, where the radiation line width is conditioned by the irregularity. In the hard frequency region the spectrum is drastically changed due to the irregularity. In this case the linear gain of the stimulated radiation is conditioned by the distribution of the field sources and is dozens of times higher than that in case of the regular undulator. It was shown that using TTF FEL's 233 MeV energy electron bunch instead of SLAC's 13.6 GeV energy bunch it is possible to generate 8.3 KeV energy photon beam from the 10cm length of the interaction path.

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