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## THz polarization radiation from electrons passing corrugated dielectrical tube under noncentral propagation

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Generation of electromagnetic radiation in the frequency region of terahertz (THz) has attracted ever-growing attention owing to fundamental significance and interesting applications. In our previous work [1] we investigated source of THz radiation based on electrons moving through the channel with variable radius, where radiation arises due to Cherenkov (CR) and Smith-Purcell radiations (SPR). In this work electrons moved centrally. In experiment it is difficult to achieve such conditions, therefore it is of importance to construct the theory free of this assumption.

In order to correct theoretical model, e.g. for experimental conditions of LUCX facility in KEK, Japan [2], it would be very useful to investigate radiation under noncentral propagation at some distance  $b$  from axis of corrugated channel. Theoretical model describing noncentral propagation is discussed. Radiation characteristics for noncentral case are compared with those for central electrons propagation. Limiting case of  $b$  much less than internal radius of channel are considered. Intensity dependences of SPR and CR peaks on distance  $b$  are investigated for different target parameters.

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