Contribution ID: **11** Type: **Poster**

Development of a P-Band Energy-Recovering Klystron for CEPC

Based on the high efficiency klystron scheme of circular electron positron collider (CEPC), the depressed collector design is proposed to improve the overall efficiency of RF power source. The depressed collector technology has been applied in low power microwave electronic vacuum devices such as TWT and TV communication klystrons. The velocity of electrons entering the klystron collector is scattered, and it is difficult to use the depressed collector to sort the velocity of electrons. This paper will carry out a detailed theoretical analysis of the depressed collector and determine its basic design scheme for CEPC P-bend high efficiency klystron.

Primary author: LIU, Yu (Institute for High Energy Physics)

Co-authors: ZHOU, Zusheng (IHEP); Dr XIAO, Ouzheng (1)Institute of High Energy Physics, Chinese Academy of Sciences, Beijing 100049, China); WANG, Yiao (Institute of High Energy Physics, Chinese Academy of Sciences); Dr XIAO, Han (1)Institute of High Energy Physics, Chinese Academy of Sciences, Beijing 100049, China)

Presenter: LIU, Yu (Institute for High Energy Physics)

Session Classification: Poster

Track Classification: Accelerator: 02: Accelerator technology