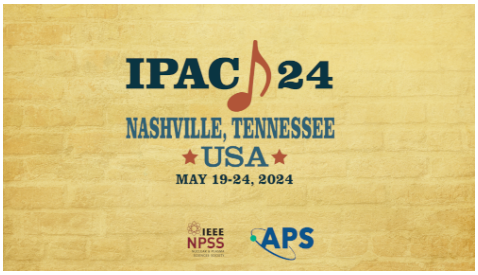

Contribution ID: **1050** Contribution code: **MOPR28** Type: **Poster Presentation**

Fabrication study of corrugated structure for sub-THz by stacking disks

Monday, 20 May 2024 16:00 (2 hours)

We have fabricated corrugated structures for sub-THz regime by stacking disks. By sending electron beams into the structure, the wakefield of 200 GHz was successfully measured. The frequency and power levels of wakefield were very similar to our design. For the our next target of gigawatts power, we have newly designed a structure of 400 GHz. More precise fabrication is required compared to the 200 GHz structure. The die stamping method was changed to the LIGA process for the production of each disk. And we improved the assembly method as well. In the previous fabrication, the maximum error was around 10 micrometers. The errors may be reduced to one-tenth of the previous one. In this paper, we will introduce the new design.

Footnotes

Funding Agency

Paper preparation format

Word

Region represented

Asia

Primary author: KONG, Hyung-sup (Pohang Accelerator Laboratory)

Co-authors: WISNIEWSKI, Eric (Illinois Institute of Technology); CHEN, Gongxiaohui (Argonne National Laboratory); HA, Gwanghui (Northern Illinois University); KWAK, Ho Jae (Pohang Accelerator Laboratory); KIM, Jina (Pohang Accelerator Laboratory); KO, Jinjoo (Korea University Sejong Campus); POWER, John (Argonne National Laboratory); KIM, Jong Hyun (Pohang Accelerator Laboratory); SEO, Min Kyu (Korea University Sejong Campus); KIM, Seung-hwan (Pohang Accelerator Laboratory); SHIN, Seunghwan (Korea University Sejong Campus); LIU, Wanming (Argonne National Laboratory)

Presenter: KONG, Hyung-sup (Pohang Accelerator Laboratory)

Session Classification: Monday Poster Session

Track Classification: MC3: Novel Particle Sources and Acceleration Techniques: MC3.A16 Advanced Concepts