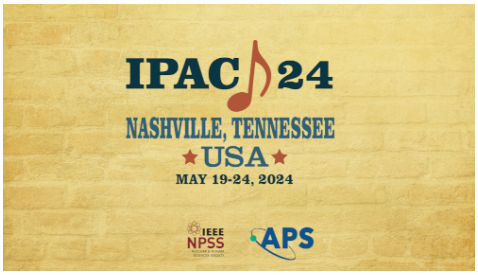

Contribution ID: **1232** Contribution code: **WEPC50** Type: **Poster Presentation**

GaAs cathode activation by deposition of Cs-CsO-Sb thin film

Wednesday, 22 May 2024 16:00 (2 hours)

GaAs cathodes are unique devices which generate a spin-polarized electron beam by the photoelectric effect when illuminated with a circularly polarized laser. Thin-film Negative Electron Affinity (NEA) surfaces have an essential role in spin polarized beam production, but they have limited lifetimes. In this study, we activate GaAs as an NEA cathode by evaporating Cs, K, and Sb metal on its cleaned surface. Here we present the latest experimental results of quantum efficiency measurements taken after evaporative deposition of multi-alkali thin-film surfaces.

Footnotes

Funding Agency

The Japanese Ministry of Education, Culture, Sports, Science and Technology
The Cooperative Support for Researchers and Educators in Universities Program at KEK

Paper preparation format

LaTeX

Region represented

Asia

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Session Classification: Wednesday Poster Session

Track Classification: MC2: Photon Sources and Electron Accelerators: MC2.T02 Electron Sources