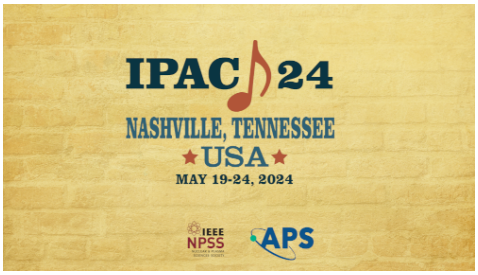

Contribution ID: **1483** Contribution code: **WEPC46** Type: **Poster Presentation**

Development of spin polarized electron sources based on III-V semiconductors at BNL

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

Photocathodes capable of producing spin polarized electrons beams are required for both high energy and nuclear physics experiments. In this work, we describe in detail the commissioning of a new apparatus for photocathode characterization which includes a retarding field Mott polarimeter for the measure of photoelectron spin polarization. We will illustrate the design of superlattice structures equipped with Distributed Bragg Reflector and present the measurements of spin polarization and quantum efficiency of emitted electrons from these structures.

Footnotes

Funding Agency

Work supported by Brookhaven Science Associates, LLC under Contract No. DE-SC0012704 with the U.S. Department of Energy. SNL is managed and operated by NTESS under DOE NNSA contract DE-NA0003525.

Paper preparation format

LaTeX

Region represented

North America

Primary author: CULTRERA, Luca (Brookhaven National Laboratory)

Co-authors: MUHOWSKI, Aaron (Sandia National Laboratories); BOUKHICHA, Mohamed (Brookhaven National Laboratory); SAHA, Pallavi (Brookhaven National Laboratory); HAWKINS, Samuel (Sandia National Laboratories); PATEL, Victor (Sandia National Laboratories)

Presenter: CULTRERA, Luca (Brookhaven National Laboratory)

Session Classification: Wednesday Poster Session

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