

Study on the Secondary Electron Emission Coefficient of aluminum oxide

Friday 6 July 2018 20:15 (15 minutes)

Using the spherical secondary electron emission coefficient measuring device, the primary current and the secondary current of the secondary electron emission process are simultaneously measured by the collection method and the principle of charge conservation, and the surface of the sample is neutralized by charge during the measurement process. Under the small error, the secondary electron emission coefficient of the insulation sample under different incident energy and incident angle was measured, and the result obtained by this measurement method was proved to be stable and reliable. At the same time, the secondary electron emission coefficients of aluminum oxide films with different thicknesses at different incident energies and incident angles were measured by this method, and the energy distribution of the secondary electrons emitted was measured by the grid screening method. Thus, a film having a better secondary electron emission characteristic as a coating solution for an electron multiplier device can be selected and used to enhance the performance of the electron multiplier device.

Author: WEN, kaile (IHEP CAS)

Co-authors: LIU, shulin; YAN, baojun (IHEP)

Presenter: WEN, kaile (IHEP CAS)

Session Classification: POSTER

Track Classification: Detector: R&D for Present and Future Facilities