Contribution ID: **120** Type: **Poster**

Development of Multi-Purpose Metal Ion Source for Use of Different Materials Bonding

Thursday, November 14, 2024 1:00 PM (1h 30m)

Radpion Inc. is a company that develops and sells ion sources, ion implantation devices, and technologies. It succeeded in industrialization by developing the surface electrostatic prevention technology for plastic and ceramic parts using gas ion implantation technology and devices. Recently, the need for bonding different materials in 5G/6G antennas and heat dissipation substrates is increasing, and our company is trying to solve it by using a metal ion beam. In the case of existing metal ion sources, the fraction of extracted metal ions is low, so it can be used for research purposes, but it is difficult to apply them industrially. The method of making metal ions varies depending on the type of metal ion source, but our company uses the sputtering method to increase the sputtering power density of several w/cm2 to several tens w/cm2 to increase the ion fraction of the sputtered metal by more than 10 times compared to the existing method, and is developing an ion source that can be used industrially by extracted metal ions of 20 keV and a diameter of 100mm. Currently, the initial metal ion source was developed and RBS(Rutherford backscattering spectrometry) analysis is being conducted on the investigated sample. Detailed data will be presented

Paper submission Plan

Yes

Best Presentation

No

Contribution track

ICABU WG4. Applications of Particle Beams

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