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Development of Ion Source for Novel Applications

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The use of Linear Ion Sources has been in the increase over the past 20 years. The present paper is an attempt to bring this type of sources to new research and industrial fields. The main application is still dominated by ion cleaning pre-treatment of substrates prior to coating deposition in order to enhance the coating adhesion. This is now a common application for high end market products of some display coating applications. An area of great interest has been the use of this sources in Plasma Enhanced Atomic Layer Deposition (PEALD). Following similar concept a combination of Ion Source and new processes have been developed in order to offer a research tool able to create new materials and surface condition. The ability to reproduce and upscale processes from the small R&D tool to large industrial level has made this type of source an interesting proposition. The present paper will present some new applications of the linear ion source in several fields and technologies of interest.

Keywords

ion source

PEALD

surface conditioning