

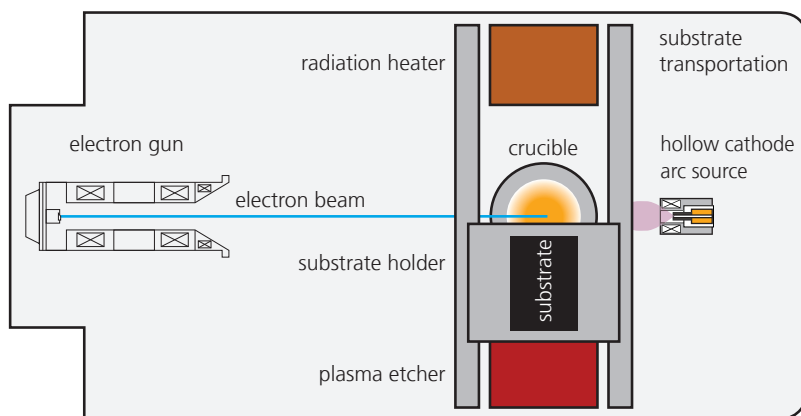
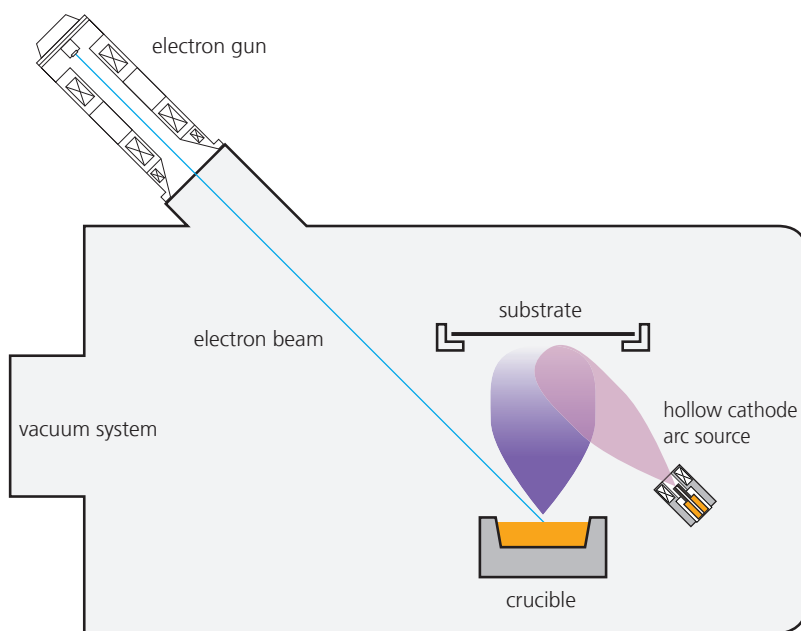
EMO

Laboratory coater with EB evaporator

Technical specifications

electron gun	100 kW / 40 kV
plasma equipment	hollow cathode arc sources spotless arc (1000 A)
crucibles	water-cooled copper crucible hot crucible (graphite, ceramics)
substrate size (sheets)	max. 100 mm x 200 mm
substrate speed	up to 0.1 m/s
additional equipment	radiation heater max. 4 kW plasma etcher max. 3 kW DC magnetron max. 5 kW

Scheme



Technologies

coating processes:

- high-rate electron beam evaporation
- thermal evaporation of sublimating materials
- plasma-activated deposition processes (HAD and SAD process)
- magnetron sputtering
- magnetron-PECVD process for sheets

pre-treatment and post-treatment:

- heating
- plasma etching
 - magnetron sputter etching
 - hollow cathode arc based plasma pretreatment
- interfacial layers

electron beam remelting and refining

test of components for electron beam technologies

process monitoring:

- substrate temperature measurement
- computer-based data storage

Business units

Coating of sheets and metal strips

This business unit is concerned with the vacuum coating of high-area metal sheets and strips at high deposition rates. In addition to the environmental friendliness of our process, another advantage is the almost inexhaustible range of layer materials that can be used which far exceeds the materials that can be applied for conventional surface modification.

Coating of machine parts and tools

This business unit is devoted to the coating of substrates of 3-dimensional geometry, regardless of which substrate material. By applying a suitable coating, the resistance of a component to corrosion, scratching, or abrasion can be increased, decorative requirements can be fulfilled, or other specific functionalities can be realized.

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