



KORVUS TECHNOLOGY

FISSION

MAGNETRON SPUTTERING SOURCES



inconvenience of draining coolant-water every time the source is removed from the chamber. Source mounting is also made simple and without the need for any tools.

The Fission sources can be operated in DC mode for conducting materials and RF mode for insulating materials. Gas introduction is through the gas hood, allowing a higher partial pressure to be achieved near the target surface and thereby reducing the overall chamber pressure required during deposition. The sources can be equipped with manual or motor-driven shutters and can be controlled using our PC automation option.

Reactive sputtering can be enabled either by introducing additional gases directly with the sputtering gas or with a separate gas feed in the chamber.

Magnetic materials can be sputtered using an optional strong magnet set which allows targets up to 3mm thick to be sputtered.

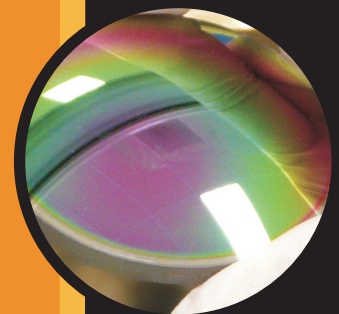
The Fission sources can be used to sputter all (solid) metals, insulators and semiconductors. Multiple sources may be used in one system in order to grow multilayer or composite material films.

Sputter deposition is a widely-used technique for the deposition of thin films. A plasma is ignited above a negatively-biased 'target' which has the effect that ions are drawn from the plasma and accelerated towards the target material. On impact, the argon ions eject atoms/molecules from the surface - a process known as sputtering. The sputtered material forms a vapour, which can be re-condensed on a substrate to form a thin film.

The Fission series magnetron sputtering sources enable rapid, contaminant-free deposition of metal or dielectric films in the Hex modular deposition system. Water-cooling and gas connections are made using quick-release connectors, removing the need to find tools to dismount the source and eliminating the hazard and



RF/DC Sputtering
High target Usage



Metallisation
Dielectric films
Multilayers

Target Diameter:	50mm (2")
Maximum Target Thickness:	6mm(3mm magnetics with strong magnets)
DC Power Supply:	720W (600V, 1.2A)
RF Power Supply:	300W (13.56MHz)
Gas Feed:	Integral through gas hood
Cooling:	Water (min 0.5l/min)

