

Ion Irradiation Facility, Type M + Irradiation Chamber Setup

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The Ion Irradiation Facility Type-M can be used for ion irradiation and ion implantation applications.

The compact Ion Irradiation Facility Type-M is based on a versatile Electron Cyclotron Resonance Ion Source (ECRIS), an extraction column, a Wien filter, a neutral particle filter, a transition lens & deflector scanning assembly, optional with an irradiation chamber as well as vacuum setup, a support stand and a C&C cabinet.

All components are highly modularized and can be offered separately.



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further reading:

- <https://dis-germany.com/products/ion-irradiation-facilities-type-m/>

Special Features:

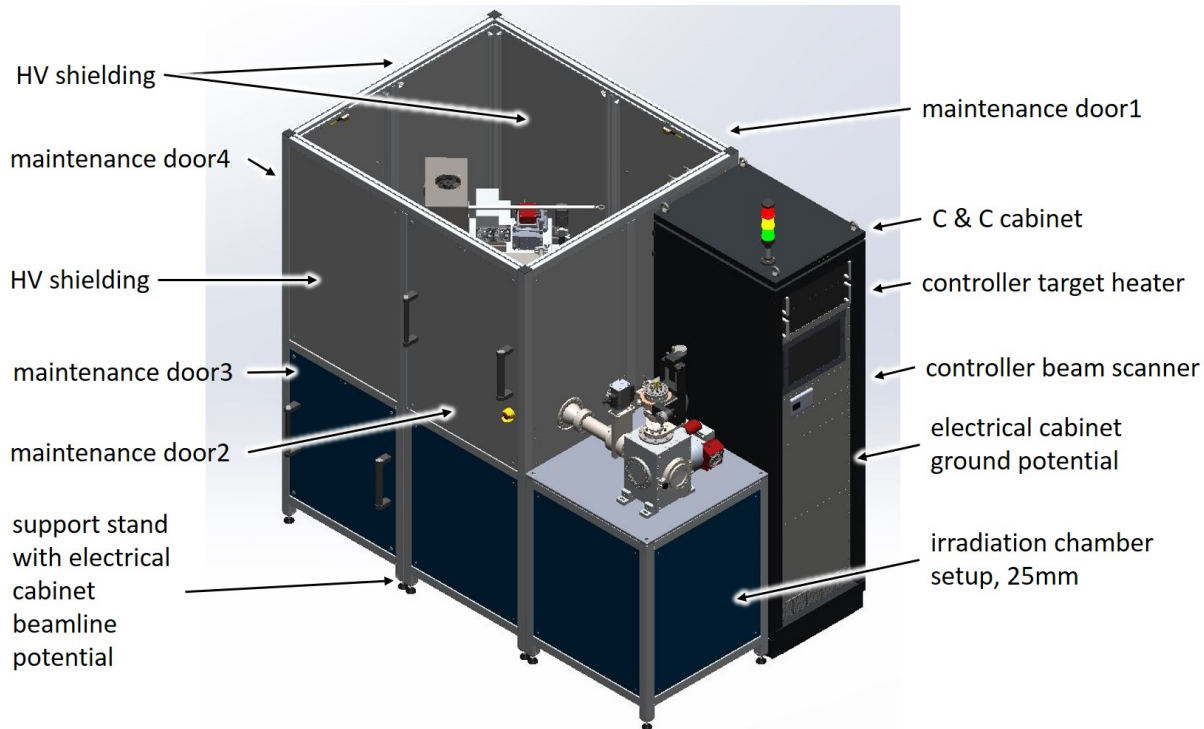
- Ultra-compact system, length <2500 mm
- Full control of the beam parameters via programmable logic controller (PLC)
- charged particle separation using ExB filter
- neutral particle filter
- X-Y scanning system

Optional Supplementing Devices:

- Irradiation chamber for samples, variable and freely adjustable implantation angle
- sample heating up to 500 °C
- sample transfer system
- Faraday cups for the beam current measurement (inline and in target chamber)
- software controlled ion flux stabilization

Please do not hesitate to contact us for additional support.

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TECHNICAL DATA

Produced ions	Helium (He ⁺), Hydrogen (H ⁺), other elements are possible too (with different ion intensity)
Energy range	from 1 kV to 40 kV
Typical flux	10 ¹⁵ ions/(cm ² min) at 10 μA
Current range	1 μA to 80 μA and above depending on the energy
Beam filter	Wien filter
Beam scan	X-Y scanner to reach targeted flux, Target area: 25 mm x 25 mm or on request
Vacuum	1 × 10 ⁻⁸ mbar if the system is integrated with an UHV irradiation chamber (integrated system), Otherwise, few 1 × 10 ⁻⁶ mbar (standalone system)
approx. box size (length x width x height)	2435 mm x 1415 mm x 2210 mm