

IOM

Leibniz-Institut für Oberflächenmodifizierung e. V.

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Date: Jan 5, 2020

Offer Design, modeling, construction, and delivery of a particle source

Preamble

IOM and JHI collaborate on the setup and construction of a particle source for surface science and surface engineering, i.e. surface film generation. It will be a modular component of a particle accelerator at IOM in Leipzig. It consists of an electrospray source for generating highly charged ice particles (from droplets) with drivers connected to a vacuum chamber. The chamber will contain an Ion-Optics to measure and select particles of selected mass and charge (with embedded nanoparticles or chemical compounds in it). These particles will be accelerated in later modular stages to hyperthermal velocities (>3000 km/s) and high kinetic energies at IOM (to be constructed by IOM).

The JHI group is a well-known expert group in the development of ion optics and specialized and dedicated electronic equipment.

JHI will perform/deliver the following tasks:

- Design of source of multiply charged particles.
- Drawing a 3-D source model.
- Design of vacuum part of apparatus.
- Design of electronic part of apparatus.
- Modeling of ion trajectories, optimization of particle velocities.
- Report
- Assembly and delivery of (assembled) hardware, test of equipment in Leipzig

Before hardware and parts are assembled (see CAD plan in the appendix to this offer), the hardware pieces (to be assembled) will be delivered by IOM at additional costs.

The work will be performed during Jan.-Dec. 2020 and the device will be delivered in December 2020 at the latest (delivery time).

Total: 40 000.- EUR

Conditions/terms of payment: The price does include overhead and labor of JHI, but not hardware to be delivered by IOM and no VAT. The costs have to be paid in advance, i.e., in January of 2020. The offer is valid until Jan 30, 2020.

Date, Signature

5.1.2020

