

Germany-Dresden: Laboratory, optical and precision equipments (excl. glasses)

OJ S 70/2023 07/04/2023

Contract notice

Supplies

Legal Basis:

Directive 2014/24/EU

Section I: Contracting authority

I.1. Name and addresses

Official name: Helmholtz-Zentrum Dresden-Rossendorf e.V.

Postal address: Bautzner Landstraße 400

Town: Dresden

NUTS code: DED21 Dresden, Kreisfreie Stadt

Postal code: 01328

Country: Germany

Contact person: Department of tender and procurement

E-mail: dm-vergabe@hzdr.de

Internet address(es):

Main address: www.hzdr.de

I.3. Communication

The procurement documents are available for unrestricted and full direct access, free of charge, at: [https://www.tender24.de/NetServer/TenderingProcedureDetails?function=](https://www.tender24.de/NetServer/TenderingProcedureDetails?function=Details&TenderOID=54321-Tender-1874bd05f1b-7f5287ce7ff514d2)

[Details&TenderOID=54321-Tender-1874bd05f1b-7f5287ce7ff514d2](https://www.tender24.de/NetServer/TenderingProcedureDetails?function=Details&TenderOID=54321-Tender-1874bd05f1b-7f5287ce7ff514d2)

Additional information can be obtained from the abovementioned address

Tenders or requests to participate must be submitted electronically via: www.tender24.de

Tenders or requests to participate must be submitted to the abovementioned address

I.4. Type of the contracting authority

Other type: Nonacademic research center

I.5. Main activity

Other activity: Fundamental research

Section II: Object

II.1. Scope of the procurement

II.1.1. Title

Scanning quantum magnetometer

Reference number: EUOV2301

II.1.2. Main CPV code

38000000 Laboratory, optical and precision equipments (excl. glasses)

II.1.3. Type of contract

Supplies

II.1.4. Short description

Delivery, installation, commissioning and acceptance of a scanning quantum magnetometer

II.1.5. Estimated total value

Value excluding VAT: 400 000,00 EUR

II.1.6. Information about lots

This contract is divided into lots: no

II.2. Description

II.2.3. Place of performance

NUTS code: DED21 Dresden, Kreisfreie Stadt

Main site or place of performance: Helmholtz-Zentrum Dresden - Rossendorf e.V. FWI /
Building 613/03 Bautzner Landstraße 400 01328 Dresden GERMANY

II.2.4. Description of the procurement

A scanning quantum magnetometer shall be acquired at the Institute of Ion Beam Physics and Materials Research (FWIQ) at HZDR. This instrument will be available for cutting-edge research in the fields of energy, health and matter, as well as serving as a test infrastructure for quantum sensor technology in Saxony. The device should be based on a single nitrogen-vacancy (NV) center in diamond mounted on a cantilever, enabling simultaneous acquisition of the sample's topography and its surface magnetic fields with nanoscale resolution. The device should operate at room temperature under ambient conditions and provide magnetic field sensitivity better than 10 uT per square root Hz with spatial resolution better than 100 nm. It should also have close-loop sample positioning and scanner. The system should be compatible with an optional source of magnetic field and optional sampler heater. The overall goal is to expand the spectrum of innovative instruments at HZDR and to intensify activities in the field of quantum technologies. Furthermore, the system should have an additional optical excitation/detection path to optionally extend the scanning quantum magnetometry for silicon vacancies in SiC.

The following parameters shall be achieved:

- Single NV center mounted on a cantilever as a magnetic field sensor providing sensitivity better than 10 uT/sqrt(Hz)
- XYZ piezo closed-loop scanner with scanning range not smaller than 80 um x 80 um x 10 um and resolution better than 0.3 nm
- Coarse sample positioning within range not smaller than 5 mm x 5 mm x 5 mm and resolution better than 2 um
- Magnetic spatial resolution better than 100 nm
- Green laser for excitation is provided
- Single photon counting module is included
- Microwave antenna with micropositioning or integration of scanning tip with microwaves
- Microwave source and amplifier are provided
- Software for DC magnetometry (updates included)
- Delivery has to take place 20 weeks after placing the order.
- Measurement scripting abilities

II.2.5. Award criteria

Criteria below

Quality criterion - Name: Performance / Weighting: 50,00

Price - Weighting: 50,00

II.2.6. Estimated value

II.2.7. Duration of the contract, framework agreement or dynamic purchasing system

Duration in days: 168

This contract is subject to renewal: no

II.2.10. Information about variants

Variants will be accepted: no

II.2.11. Information about options

Options: no

II.2.13. Information about European Union funds

The procurement is related to a project and/or programme financed by European Union funds:
no

II.2.14. Additional information

Section III: Legal, economic, financial and technical information

III.1. Conditions for participation

III.1.1. Suitability to pursue the professional activity, including requirements relating to enrolment on professional or trade registers

List and brief description of conditions:

Self-declaration about the registration within a professional or trade register as prescribed by the legal provisions of the state where the bidder is based.

Self-declaration regarding the exclusion criteria specified in Sections 123, 124 GWB Self-declaration for the 5th EU sanctions package (EU 2022/576 from 8th April 2022)

III.1.3. Technical and professional ability

List and brief description of selection criteria:

Specification of work performed in the last three years

Minimum level(s) of standards possibly required:

For the examination of expertise and performance, the bidder must provide at least one reference is comparable with the subject of the tendering procedure.

Section IV: Procedure

IV.1. Description

IV.1.1. Type of procedure

Open procedure

IV.1.3. Information about a framework agreement or a dynamic purchasing system

IV.1.8. Information about the Government Procurement Agreement (GPA)

The procurement is covered by the Government Procurement Agreement: yes

IV.2. Administrative information

IV.2.2. Time limit for receipt of tenders or requests to participate

Date: 10/05/2023 Local time: 12:00

IV.2.3. Estimated date of dispatch of invitations to tender or to participate to selected candidates

IV.2.4. Languages in which tenders or requests to participate may be submitted

English, German

IV.2.6. Minimum time frame during which the tenderer must maintain the tender

Tender must be valid until: 07/06/2023

IV.2.7. Conditions for opening of tenders

Date: 10/05/2023 Local time: 12:00

Information about authorised persons and opening procedure: not applicable

Section VI: Complementary information

VI.1. Information about recurrence

This is a recurrent procurement: no

VI.3. Additional information

VI.4. Procedures for review

VI.4.1. Review body

Official name: 1. Vergabekammer des Freistaates Sachsen bei der Landesdirektion Sachsen

Postal address: PF 10 13 64

Town: Leipzig

Country: Germany

VI.4.4. Service from which information about the review procedure may be obtained

Official name: Vergabekammer des Freistaates Sachsen bei der Landesdirektion Sachsen

Postal address: PF 10 13 64

Town: Leipzig

Country: Germany

VI.5. Date of dispatch of this notice

04/04/2023