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Tender

3406/NAMRC/JS/22 - Flash Analyser for Thermal Diffusivity Measurements

UNIVERSITY OF SHEFFIELD

F02: Contract notice
Notice identifier: 2022/S 000-026466
Procurement identifier (OCID): ocds-h6vhtk-036a4d
Published 22 September 2022, 9:15am

Section I: Contracting authority

I.1) Name and addresses

UNIVERSITY OF SHEFFIELD

Nuclear AMRC, Advanced Manufacturing Park, University of Sheffield, Brunel Way, Catcliffe,

Rotherham

S60 5WG

Contact

Jamie Shaw

Email

jamie.shaw@sheffield.ac.uk

Country

United Kingdom

Region code

UKE31 - Barnsley, Doncaster and Rotherham

UK Register of Learning Providers (UKPRN number)

10007157

Internet address(es)

Main address

www.sheffield.ac.uk

Buyer's address

https://in-tendhost.co.uk/sheffield/

I.3) Communication

The procurement documents are available for unrestricted and full direct access, free of charge, at

https://www.in-tendhost.co.uk/sheffield/

Additional information can be obtained from the above-mentioned address

Tenders or requests to participate must be submitted electronically via

https://www.in-tendhost.co.uk/sheffield/

Electronic communication requires the use of tools and devices that are not generally available. Unrestricted and full direct access to these tools and devices is possible, free of charge, at

https://www.in-tendhost.co.uk/sheffield/

I.4) Type of the contracting authority

Body governed by public law

I.5) Main activity

Education

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

3406/NAMRC/JS/22 - Flash Analyser for Thermal Diffusivity Measurements

Reference number

3406/NAMRC/JS/22

II.1.2) Main CPV code

- 38434000 - Analysers

II.1.3) Type of contract

Supplies

II.1.4) Short description

The University of Sheffield wishes to invite tenders for a Flash Analyser for measuring thermal diffusivity on behalf of the Nuclear AMRC at Brunel Way, Catcliffe, Rotherham S60 5WG.

II.1.5) Estimated total value

Value excluding VAT: £175,000

II.1.6) Information about lots

This contract is divided into lots: No

II.2) Description

II.2.2) Additional CPV code(s)

- 38300000 - Measuring instruments

- 38412000 - Thermometers
- 38432000 - Analysis apparatus

II.2.3) Place of performance

NUTS codes

- UKE31 - Barnsley, Doncaster and Rotherham

II.2.4) Description of the procurement

3406/NAMRC/JS/2022 - Flash Analyser for Thermal Diffusivity Measurements

The University of Sheffield wishes to invite tenders for a Flash Analyser for measuring thermal diffusivity on behalf of the Nuclear AMRC at Brunel Way, Catcliffe, Rotherham S60 5WG.

Scope of Requirement:

Use and Description

The Nuclear AMRC (https://www.namrc.co.uk) has a requirement for a Flash Analyser for measuring thermal diffusivity to support manufacturing research activities within the nuclear sector. The currently proposed materials characterisation equipment namely, Flash diffusivity technique will add extra capability to Nuclear AMRC's existing materials testing facility. This capability facilitates measurement of valuable and important parameters such as thermal diffusivity on heat transfer across applied materials to elevated temperatures, Room Temperature (RT - around 20-22°C) to 1600°C. For example, thermo-mechanical treatments in steel, heat treatments in steel/alloys and production processes of heat removal materials affect it's structural properties. These underlying changes can be assessed by this technique that enables measurement of variations in thermal transport property non-destructively. In addition, the flash technique will be a great tool in analysing and generating experimental thermal database including for (but not limited to) newly developed steels/alloys, ceramics and composites.

The flash diffusivity equipment is to be installed at the Nuclear AMRC's metallurgical laboratory workspace and will be a great addition to already installed Dilatometer and DSC techniques in generating accurate thermophysical /thermodynamic database for advanced nuclear materials from room temperature to 1600 °C.

In the case of heat removal materials property analysis, the thermal diffusivity and specific heat data obtained from this technique in addition to density measurements from our Dilatometer can be combined to estimate the important transport property, i.e. thermal

conductivity as a function of temperature. Depending on the thermal history and metallurgical structural changes induced, the variations in transport properties will infer suitable process selection or recommend further improvements on the production process.

In addition, reliable values of thermophysical properties of industrially important materials such as ferrous and non-ferrous, composites, ceramics, heat resistant alloys and other vast range of materials can be assessed using the flash diffusivity method.

The full technical specification can be found in the tender documentation which will be sent to you once you have expressed your interest.

Tender Process and Documentation:

This is a Find A Tender Service open exercise. The ITT can be downloaded by registering and expressing your interest on the University`s e-tendering system https://in-tendhost.co.uk/Sheffield.

If you have any questions or comments in relation to this tender they must be submitted via the In-tend System, this can be accessed at https://in-tendhost.co.uk/Sheffield

Completed tenders must be returned through the same e-tendering system.

Closing date for receipt of tenders: Monday 24th October 2022 at 12 noon (UK time).

II.2.5) Award criteria

Price is not the only award criterion and all criteria are stated only in the procurement documents

II.2.6) Estimated value

Value excluding VAT: £175,000

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

Duration in months

24

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

Section IV. Procedure

IV.1) Description

IV.1.1) Type of procedure

Open procedure

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

24 October 2022

Local time

12:00pm

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

English

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

Duration in months: 3 (from the date stated for receipt of tender)

IV.2.7) Conditions for opening of tenders

Date

24 October 2022

Local time

12:45pm

Section VI. Complementary information

VI.1) Information about recurrence

This is a recurrent procurement: No

VI.2) Information about electronic workflows

Electronic ordering will be used

Electronic invoicing will be accepted

Electronic payment will be used

VI.4) Procedures for review

VI.4.1) Review body

The High Court of England, Wales and Northern Ireland

London

Country

United Kingdom