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Tender

## **SEM Picomechanical Indenter (NU-Pico)**

University of Northumbria at Newcastle

F02: Contract notice

Notice identifier: 2024/S 000-040692

Procurement identifier (OCID): ocds-h6vhtk-04c8f3

Published 17 December 2024, 7:05pm

### **Section I: Contracting authority**

#### **I.1) Name and addresses**

University of Northumbria at Newcastle

College street, Newcastle upon Tyne

Newcastle upon Tyne

NE1 8ST

#### **Contact**

Laura Rizaeva

#### **Email**

[laura.rizaeva@northumbria.ac.uk](mailto:laura.rizaeva@northumbria.ac.uk)

#### **Telephone**

+44 1912326002

#### **Country**

United Kingdom

**Region code**

UKC - North East (England)

**Internet address(es)**

Main address

[www.northumbria.ac.uk](http://www.northumbria.ac.uk)

**I.3) Communication**

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

<https://www.delta-esourcing.com/respond/4HH2792572>

Additional information can be obtained from the above-mentioned address

Tenders or requests to participate must be submitted to the above-mentioned address

**I.4) Type of the contracting authority**

Other type

University of Northumbria at Newcastle

**I.5) Main activity**

Education

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## **Section II: Object**

### **II.1) Scope of the procurement**

#### **II.1.1) Title**

SEM Picomechanical Indenter (NU-Pico)

Reference number

T24/0044

#### **II.1.2) Main CPV code**

- 38511100 - Scanning electron microscopes

#### **II.1.3) Type of contract**

Supplies

#### **II.1.4) Short description**

The tender is for supply of Nanoindenter or picoindenter to fit inside our Scanning Electron Microscope (SEM model: Tescan Mira 3 with GM chamber). This will allow users to map surface mechanical and tribological properties of materials and correlate them to structural, morphological and chemical properties.

The Northumbria University (NU) Scanning Electron Microscope Picomechanical Indenter (NU-Pico) will provide a state-of-the-art regional facility for high-speed simultaneous characterisation of the nanomechanical, morphological and chemical properties of thin film coatings, surfaces and nanomaterials. NU-Pico will be the first SEM nanoindenter in the northeast of England and will support unprecedented recent growth in biomaterials, renewable energy materials, civil engineering materials and smart materials and surfaces research at NU and provide a game-changing nanomechanical facility for the region and beyond.

NU-Pico must enable a drastic expansion on our current nano-tribomechanical testing capability and unlock a range of complimentary material characterisation techniques, critical for rapid prototyping of novel materials for cutting edge applications. The modular and user-friendly nature of NU-Pico, together with its enhanced capability, must make it useful for a much larger user base, including early career researchers, PhD students, research technical professionals and industry users, from wider interdisciplinary research areas.

#### **II.1.5) Estimated total value**

Value excluding VAT: £290,000

#### **II.1.6) Information about lots**

This contract is divided into lots: No

### **II.2) Description**

#### **II.2.3) Place of performance**

NUTS codes

- UKC - North East (England)

Main site or place of performance

NORTH EAST (ENGLAND)

#### **II.2.4) Description of the procurement**

NU-Pico must be developed with user engagement, ease of service, seamless integration and sustainability in mind, to provide an enabling platform for academic and industrial researchers to perform high speed mechanical property mapping of material surfaces (surface hardness, Young's modulus, compression, tension, fatigue, adhesion etc.), while using SEM capabilities to perform simultaneous high resolution surface imaging, chemical mapping, 3D surface profiling and phase distribution studies. NU-Pico must also operate as a stand-alone Nanoindenter capable of high-speed mechanical property mapping for users not requiring the additional SEM capabilities. Moreover, NU-Pico must be capable of transforming into a powerful bio-indenter capable of studying the surfaces of soft and biological matter like biomaterials, biopolymers, functional biocomposites and hydrogels.

#### **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: £290,000

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

Duration in months

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**

To respond to this opportunity please click here: <https://www.delta-sourcing.com/respond/4HH2792572>

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## **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: No

### **IV.2) Administrative information**

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

Date

21 January 2025

Local time

5:00pm

#### **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

21 January 2025

Local time

5:00pm

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## **Section VI. Complementary information**

### **VI.1) Information about recurrence**

This is a recurrent procurement: No

### **VI.3) Additional information**

For more information about this opportunity, please visit the Delta eSourcing portal at:

<https://www.delta-esourcing.com/tenders/UK-UK-Newcastle-upon-Tyne:-Scanning-electron-microscopes./4HH2792572>

To respond to this opportunity, please click here:

<https://www.delta-esourcing.com/respond/4HH2792572>

GO Reference: GO-20241217-PRO-28924097

### **VI.4) Procedures for review**

#### **VI.4.1) Review body**

University of Northumbria at Newcastle

College street

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NE1 8ST

Telephone

+44 1912326002

Country

United Kingdom