



**INQUIRY
30/WIM/PU/2020**

1. NAME AND ADDRESS OF THE CONTRACTING AUTHORITY

Warsaw University of Technology
Faculty of Materials Science and Engineering
02-507 Warsaw, 141 Wołoska Street
VAT No.: PL 525 000 58 34

2. OBJECTS OF THE CONTRACT

Equipment for electrochemical measurements

3. SPECIFICATION OF THE OBJECTS OF THE CONTRACT

The equipment for electrochemical measurements of solid-state samples (disks up to 20mm in diameter) should be a set of devices with a capability, in particular, of:

- electrochemical cells testing (fuel cells - voltage-current characteristics, durability testing);
- conductivity, electrochemical impedance spectroscopy (EIS), DC measurements,
- transport number, permeability measurements,

at controlled temperature, and atmospheres (hydrogen, oxygen, carbon dioxide, argon and their mixtures) should enable a connection to potentiostat/galvanostat, and external gas-feeding sources.

The set should include:

1) Sample testing device which meets the following specification:

- device including: base unit with connections, sample holder, and gas-insulating chamber,
- base unit made of non-corrosive material (e.g. stainless steel), with all electrical, gas, and cooling connections (Swagelok quick connects),
- inner and outer construction elements of the gas-insulating chamber made of high temperature and corrosion resistant materials (e.g. ceramics and/or quartz glass),
- independent feeding slots (inlet, outlet) for gases fed onto both sides of tested sample/cell,
- robust sample holder for stable fixation of the sample during the test;
- thermocouples and contacts made of high purity materials (>99.9%)
- setup for 2 electrode measurement;
- additional elements, spare parts, and tools/utensils needed for stable sample mounting, device assembly, and setup, including for example: device stand, base unit fixture elements, distances and spacers, sealing rings, cables, electrode contacts, small mounting elements, gas-feeding elements (ceramic/quartz glass pipes); types of elements included should be listed in an offer,
- durable transport and storage case (metal case will be an advantage),
- user manual in English or Polish.

2) Furnace which meets the following specification:

- vertical chamber; split chamber will be preferable,
- shape and dimensions of a chamber compatible to the sample base unit,
- steel, insulated housing,
- control console (embedded or external) – programmable timesteps with delay time, temperature, heating rate, time at constant temperature,
- controlled operation temperature from RT to 1100-1200°C,
- heating elements made of FeCr-Al-Alloy will be preferable;
- power control with overvoltage protection; safety switch,
- input voltage: 230VAC (single phase)
- user manual in English or Polish.

**Politechnika
Warszawska**

Dział Zamówień
Publicznych
ul. Wołoska 141
02-507 Warszawa
tel. +48 (22) 234 87 25
marianna.wroblewska@pw.
du.pl



4. REQUIREMENTS

- Realization deadline: 8 weeks form date of the purchase order;
- The delivery will be confirmed with acceptance protocol signed by Supplier and Contractor;
- The invoice can be issued after signing of the acceptance protocol;
- The payment will be done within 14 days upon receipt of the invoice;
- Product will be delivered to **Warsaw University of Technology, Faculty of Materials Science and Engineering, Wołoska 141, room 309, Warsaw 02-507, Poland.**

5. DEADLINE, PLACE AND MANNER OF SUBMISSION OF OFFERS

Offers must be submitted not later than 22.06.2020 until 4 p.m. Offers must be submitted in electronic form to the address: zp30@pw.edu.pl, Tomasz.Wejrzanowski@pw.edu.pl
Offers should be prepared in Polish or English.

Contact Person: Tomasz Wejrzanowski, e-mail Tomasz.Wejrzanowski@pw.edu.pl , tel (+48) 22 234 87 42

6. ADDITIONAL INFORMATIONS

- 1) In order to ensure the comparability of all offers, the Contracting Authority reserves the right to contact the appropriate Tenderers in order to supplement or clarify the offers.
- 2) After selecting the Contractor, the Contracting Authority reserves the right to negotiate the terms of the contract.
- 3) The Ordering Party reserves the right to respond only to the selected offer.
- 4) This offer does not constitute an offer in accordance with art. 66 of the Civil Code, as well as it is not an announcement within the meaning of the Public Procurement Law.
- 5) The invitation is not a procurement procedure within the meaning of the Public Procurement Law and does not affect the Employer's commitment to accept any of the offers. Warsaw University of Technology The Faculty of Materials Science and Engineering reserves the right to cancel the order without choosing any of the submitted offers.
- 6) The Contracting Party stipulates that the overall offered price is public information within the meaning of the Act on access to public information and if the bidder reserves it as a trade secret or business secret, his offer will be rejected.
- 7) The Employer does not pay advances for the task. Payment is made after delivery / service.
- 8) The contracting authority can not to be held liable for any costs or expenses incurred in connection with the preparation and delivery of the offer.
- 9) Offers that will be received after the deadline will not be considered.
- 10) The Ordering Party reserves the right to negotiate the terms of the order, as well as to annul the proceedings at any stage, without giving any reason and to cancel the order without giving reasons for the resignation.
- 11) The administrator of your personal data contained in the submitted offers and processed in the verification of offers is Warsaw University of Technology with its registered office in Warsaw 00- 661, ul. Plac Politechniki 1, (hereinafter: the Employer). Contact to the Data Protection Officer: iod@pw.edu.pl

Warszawa 10.06.2020

Dziekan
Wydziału Inżynierii Materiałowej
Politechniki Warszawskiej
Prof. dr hab. inż. Jarosław Mizera

**Politechnika
Warszawska**

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