

TENDER DOCUMENTATION

issued pursuant to Section 28 paragraph (1) point b) of Act No. 134/2016 Coll., on Public Procurement, as amended,
(hereinafter the "Act"),

for preparation of bids for above-threshold public contract for supplies
contracted within the open procedure pursuant to Section 56 of the Act

NAME OF THE PUBLIC CONTRACT:

Microwave plasma CVD deposition system AND PVD & PE CVD deposition system



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This tender documentation (hereinafter the "TD") forms a basis for preparation of bids in open procedure seeking public contract for supplies pursuant to the Act. The rights, obligations and terms and conditions stipulated herein are governed by the Act.

Public Contract name: Microwave plasma CVD deposition system AND PVD & PE CVD deposition system

Contracting Authority: Fyzikální ústav AV ČR, v. v. i.
Seat: Na Slovance 1999/2, 182 21 Praha 8, Czech Republic
Identification No.: 68378271
Tax Identification No.: CZ68378271
Person authorized to represent the Contracting Authority: RNDr. Michael Prouza, Ph.D., Director

(Hereinafter the "**Contracting Authority**" for the purposes of this TD and / or "Buyer" for the purposes of the hereto attached Purchase Contract)

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Provision of explanation of TD:

Request for explanation of this TD can be submitted electronically - via the electronic tool **eGORDION v. 3.3 - Tender arena** (<https://www.tenderarena.cz>), via the above-mentioned e-mail addresses or via data box of the Contracting Authority (ID: nm9ns84).

The Contracting Authority will not respond to inquiries submitted in any other way than in electronic form in accordance with Section 211 (3) of the Act.

In response to a request for explanation of this TD, the Contracting Authority publishes it on the Contracting Authority Profile at <https://www.e-zakazky.cz/profil-zadavatele/74e987e1-b4a1-4571-b8b6-2cd93fe6f932>.



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1 DEFINITION OF THE SUBJECT-MATTER OF THE PUBLIC CONTRACT

1.1 Classification of the subject matter of the public contract

Classification of this public contract corresponds to items:

- CPV code: 38810000-6 - Industrial process control equipment
- CPV code: 31711421-0 - Magnetrons

Type of public contract: above-threshold public contract for supplies

Type of procurement procedure: open procedure

1.2 Description of the subject matter of the public contract

The subject matter of this public contract is supply (acquisition) of

- a) a **Microwave plasma CVD deposition system** with focused plasma. The system must be new, fully operational and complete and will be used for microwave plasma enhanced chemical vapour deposition of diamond thin films on planar substrates in diameter up to 4 inch from hydrogen rich plasma;
- b) a **PVD and PE CVD deposition system**. The system must be new, fully operational and complete and will be used for deposition of composite materials by PVD in combination with CVD and cluster source for deposition of thin carbon-based films and nanoparticles on planar substrates in diameter up to 4 inch.

More detailed specification of the subject matter is provided in Chapter 4 below.

1.3 Term

Anticipated commencement: immediately after contract conclusion

Anticipated completion: within 8 months of contract conclusion

1.4 Place of Performance

Place of performance shall be the premises of the Fyzikální ústav AV ČR, v. v. i. (Institute of Physics of the Czech Academy of Sciences), at Cukrovarnická 112/10, 162 00 Praha 6, building A, room A12.

1.5 Estimated value

Estimated value of the public contract is **610 000 EUR excl. VAT**.

The Contracting Authority, whose main activity is research and development in the field of physical sciences, is the beneficiary of the subsidy for the project "Solid state physics for the 21st century", Reg. No. CZ.02.1.01/0.0/0.0/16_019/0000760, within the Operational Programme Research, Development and Education (OP RDE). The subject of public procurement will be co-financed by the EU Structural Funds.



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2 CONDITIONS AND REQUIREMENTS REGARDING THE DRAWING UP OF A BID

- 2.1 Bids shall be submitted in electronic form only using the Tenderarena electronic tool within the time limit for the submission of bids. Bids in paper form are not permitted.
- 2.2 Bids shall be submitted no later than on **September 16, 2019** by **11:00 am**. Other methods of delivery shall not be considered to constitute a properly delivered bid.
- 2.3 The electronic tool eGORDION v. 3.3 - Tender arena (hereinafter "**Tenderarena**") for the submission of the bid in electronic form is available at www.tenderarena.cz. Bidders may find at this link also a guide for using the Tenderarena electronic tool (via link "Help" in footer) and helpdesk contacts.
- 2.4 The bidder must have a personal computer with a minimum of the following performance: CPU 1 GHz, 1024 MB memory, 20 GB hard drive, personal computer must be connected to the Internet at a minimum connection speed of 2 Mbps (DOWNLOAD) / 512 Kbps (UPLOAD), the entrant must have an Internet browser installed on your computer (Microsoft Internet Explorer version 9.0 or higher, Mozilla Firefox version 30.0 and above) that has Java SW version 1.8 and above installed.
- 2.5 To be able to submit a bid, the bidder must be registered as a contractor in the Tenderarena; link "contractor's registration" ("*registrace dodavatele*" at www.tenderarena.cz). A user of the bidder must have a system role of a participant ("*účastník zakázky*"). Registration of the bidder takes up to 48 hours (on working days) after all required documents have been submitted (either by post or electronically). Registration in the Tenderarena electronic tool is not charged.
- 2.6 The Contracting Authority points out that it bears no responsibility for any technical conditions on the bidder's side. The Contracting Authority recommends bidders to consider especially the speed of their Internet connection when submitting bids so that bids are submitted within the time limit for its submission. This means uploading all attachments of the bid and final submission of the bid to the Tenderarena electronic tool.
- 2.7 The bid may be prepared in the Czech or English language.
- 2.8 The bid must include **identification data of the bidder**, i.e. primarily: business name, registered office, identification number, legal form, persons authorized to act on behalf of / represent the bidder, contact details for correspondence.
- 2.9 The bid in electronic form shall not exceed 200 MB; of which a maximum of 100 MB are documents proving qualifications and a maximum of 100 MB are other documents provided in bids. The bid must be processed through acceptable file formats, i.e. Microsoft Office (Word, Excel), Open Office, PDF, JPEG, GIF, or PNG. The bid values as specified in this TD will also be submitted to the procurement procedure by inserting them into the tender form, which will be displayed when submitting the bid in electronic form. This is without prejudice to the obligation to submit other documents making up the bid.





- 2.10 For the submission in electronic form the bids must be encrypted with a certificate provided at the Tenderarena electronic tool; the certificate is available at www.tenderarena.cz. In the case of a bid being encrypted with other certificates, such a bid will be considered not delivered to the Contracting Authority in the proper manner and it will not be considered as submitted. The bid encryption with a certificate is carried out automatically in the Tenderarena electronic tool before the bid is submitted to the Tenderarena electronic tool using public certificate provided by the Contracting Authority.
- 2.11 Detailed information on the registration to Tenderarena electronic tool are attached hereto as **Annex No. 4 – Registration to the system Tender arena** (detailed information on the registration to Tenderarena electronic can be also found at www.tenderarena.cz).
- 2.12 In the case several bidders jointly participate in the procurement procedure, they will also identify the person who shall be authorized to represent them in contact with the Contracting Authority during the procurement procedure.
- 2.13 The Contracting Authority does not specify the award period for this procurement procedure.
- 2.14 The bid must be submitted in the following structure:
- Cover sheet** (please refer to Annex No. 1 hereto);
 - documents proving fulfilment of the qualification** in the structure as set out in Article 3 of the TD and description and specification of the performance offered demonstrating that the Contracting Authority's requirements regarding subject matter of the contract are met; all documents proving fulfilment of the qualification may be presented in a plain copy or scans OR bidders may substitute the submission of documents proving fulfilment of the qualification by an affirmation or by the European Single Procurement Document;
 - statement defining **the bid price** in the structure according to Article 5 hereof;
 - the data relevant for the performance of the evaluation under Article 7 hereof;
 - draft contract** (please refer to Annex No. 3 hereto).

3 QUALIFICATIONS

- 3.1 Qualification requirements shall be met by those bidders who will demonstrate the fulfilment of basic qualification, professional qualification and technical qualification.
- 3.2 **Basic qualification**
- 3.2.1 Basic qualification shall **not** be met by bidder who:
- was convicted by final judgement in the country of its registered seat of a crime specified in Annex No. 3 to the Act or another similar crime pursuant to the law of the country of its registered office in the past five years preceding the commencement of the procurement procedure; expunged convictions are disregarded,
 - has outstanding tax arrears registered in tax records in the Czech Republic or in the country of its registered office,





- c) has outstanding arrears in respect of payments and penalties of public health insurance in the Czech Republic or in the country of its registered office,
- d) has outstanding arrears in respect of payments and penalties of social security contributions and contribution to the national employment policy in the Czech Republic or in the country of its registered office,
- e) is in liquidation, has been declared insolvent, in respect of whom the receivership has been imposed under another legal regulation or it is in a similar situation pursuant to the law of the country of its registered office.

3.2.2 Bidders shall prove fulfilment of the basic qualification in relation to the Czech Republic by submitting:

- a) a copy of an entry in the Criminal Records in respect of Section 74 paragraph (1) point a) of the Act (from the country of residence),
- b) a confirmation from a relevant tax office in respect of Section 74 paragraph (1) point b) of the Act (from the country of residence and Czech Republic),
- c) a written affirmation regarding excise duty in respect of Section 74 paragraph (1) point b) of the Act,
- d) a written affirmation in respect of Section 74 paragraph (1) point c),
- e) a confirmation from a relevant district social security administration in respect of Section 74 paragraph (1) point d) of the Act (from the country of residence and Czech Republic),
- f) a copy of an entry in the Commercial Register, or a written affirmation in the event that the supplier is not incorporated in the Commercial Register, in respect of Section 74 paragraph (1) point e) of the Act.

3.2.3 If the bidder is a legal person, both this legal person and every member of its governing body shall meet the condition specified in paragraph 3.2.1 point a). Where a legal person is a member of the governing body of the bidder, the condition specified in paragraph 3.2.1 point a) shall be met by

- a) this legal person,
- b) every member of the governing body of this legal person and
- c) the person representing this legal person in the governing body of the bidder.

3.2.4 If the bidder is a branch of a business of

- a) a foreign legal person, the condition specified in paragraph 3.2.1 point a) shall be met by this legal person as well as the head of the branch,
- b) a Czech legal person, the condition specified in paragraph 3.2.1 point a) shall be met by the persons referred to in paragraph 3.2.3 as well as the head of the branch.

3.3 Professional qualification

3.3.1 Bidders shall prove fulfilment of the professional qualification in relation to the Czech Republic by submitting a copy of an entry in the Commercial Register or other similar records provided that registration in such records is required pursuant to another legal regulation.



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3.3.2 The bidder is not obliged to submit the document specified in paragraph 3.3.1 if legal regulations in the country of its registered office do not require such professional qualification.

3.4 **Technical qualification**

3.4.1 The bidder is obliged to demonstrate fulfilment of technical qualification pursuant to Section 79 paragraph (2) point b) of the Act. Fulfilment of the technical qualification will be demonstrated by a bidder, who submits a list with at least **2** significant supplies provided over the past three years before the commencement of the procurement procedure, including price and date of provision and the identification of client. At least **1** of the significant supplies in the list has to be a **complete supply of a microwave plasma deposition system** and a **1 complete supply of a PVD system**.

3.5 **Submission of qualification documents**

3.5.1 Where the Contracting Authority requires a document to be submitted, the bidder shall submit a plain copy or scan of the document. Before the contract is concluded, the Contracting Authority shall request the selected supplier to submit the originals or certified copies of the qualification documents, unless they have already been submitted during the procurement procedure.

3.5.2 Where the Contracting Authority requires a document to be submitted, the bidder shall submit it in Czech, Slovak or English language or it shall be submitted along with its translation into one of these languages.

3.5.3 The documents demonstrating basic qualification under Section 74 of the Act and professional qualification under Section 77 (1) of the Act shall demonstrate the fulfilment of the required qualification criterion not later than three months before the date of the commencement of the procurement procedure.

3.5.4 The bidder may substitute the submission of qualification documents in its bid by an affirmation or by the European Single Procurement Document pursuant to Section 87 of the Act.

3.5.5 Where qualification has been obtained abroad, it shall be proved by documents issued under the law of the country in which it has been obtained and to the extent required by the Contracting authority.

4 **DETAILED DESCRIPTION AND TECHNICAL SPECIFICATION OF THE SUBJECT MATTER**

4.1 The subject matter of this public contract is fully specified in Annexes No. 1 and 2 of the draft contract which forms an integral part hereof as Annex No. 3 hereof.

4.2 All equipment, which shall form a part of the subject matter must comply with all requirements arising from technical or safety standards valid in the Czech Republic for these types of



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equipment. Performance required hereunder shall include handover of complete documentation to the equipment. The Contracting Authority requires that the entire subject matter and all its parts will be new, not re-used.

- 4.3 The TD specifies the minimum technical requirements in Annex No. 1 of the draft contract. It is permitted that bidders supply the same or higher level solution, than those described in the technical specification, but it must always comply with the minimum requirements as set forth herein.
- 4.5 Bidders must always comply with technical requirements stipulated herein; should a bidder fail to comply with these he shall be excluded from further proceedings. Bidders are obliged to prove guaranteed technical parameters to the Contracting Authority as specified herein, i.e. bidders shall submit detailed technical specification of the offered solution containing the guaranteed achievable parameters, which must demonstrate compliance with the minimum technical parameters specified in Annex No. 1 to the contract in the Czech or English language (other language mutations will not be admissible). Specified parameters must be achieved also during installation of the equipment in the place of performance. The submitted documentation shall form a part of Annex No. 2 to draft contract.
- 4.6 Should this TD refer to specific commercial trademarks / products or solution, or other designations or visual presentations having relation to a specific supplier / manufacturer, it shall be understood as delineation of an anticipated characteristics and the bidder are entitled to propose other technically or qualitatively compliant solution.

5 STRUCTURE OF THE BID PRICE

- 5.1 Bidders are obliged to specify the total bid price, including all required performance; the total bid price is to be quoted in **EUR excl. VAT**.
- 5.2 The total bid price must include the entire subject matter and will represent a fixed, binding amount as the maximum amount and maximum admissible price, including all fees and other costs that may be associated with the performance provided hereunder, such as transportation to the place of performance, packaging, custom duties, assembly and installation costs, insurance cost etc.
- 5.3 The bid price may be exceeded exclusively in connection with the change of tax legislation related to mandatory VAT, by an amount corresponding to this legislative amendment only.

6 TERMS AND CONDITIONS, PAYMENT TERMS

- 6.1 Terms and Conditions and payment terms have been specified in the attached binding draft contract, which forms an integral part hereof as Annex No. 3 hereof.



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- 6.2 Bidders are obliged to accept without reservation or change the text of the draft contract, which forms an integral part hereof as Annex No. 3. Bidders are authorized to fill in their identification data, the bid price and other clearly marked information that are to be filled in. Bidders are not authorized to change or add to the contract in any manner, with exception of those parts which the Contracting Authority highlighted. Any breach of this condition may result in exclusion of the bidder from the procurement procedure.

7 EVALUATION CRITERIA

- 7.1 The bids will be evaluated on the basis of their economic advantageousness.

- 7.2 The evaluation criteria are:

7.2.1 Total bid price – weight 50 %

7.2.2 Technical characteristics of the bid – weight 50 %

- 7.3.1 The method of evaluation:

- 7.3.1 Within the evaluation criterion pursuant to paragraph 7.2.1 the Contracting Authority will evaluate the total bid price in EUR without VAT, processed in accordance with Article 5 of the TD. See the formula below:

$$\text{Number of points} = \frac{\text{Lowest bid price of the valid bids in EUR excl. VAT}}{\text{Bid price of the evaluated bid in EUR excl. VAT}} \cdot 50$$

Bidder completes the data for this criterion in paragraph 5.1 of the Draft Contract (Annex No. 3 of the TD) and in the Cover Sheet (Annex No. 1 of the TD). If the bidder specifies different values in the Cover Sheet and in the Draft Contract, the Contracting Authority will consider the data specified in the Draft Contract binding.

- 7.3.2 Within the evaluation criterion pursuant to paragraph 7.2.2 the Contracting Authority will evaluate the technical level of the offered system:

Microwave plasma CVD deposition system

- Diamond Growth Rate: **(growth rate of the evaluated bid in μm /highest growth rate of the valid bids in μm) * 10 points**
- Thin film homogeneity (higher than 95 %) over 4" substrate (10 points = homogenous over the whole area): **(homogeneity in mm)/100 * 10 points**
- System for liquid sample injection (bubbler): **yes – 10 points, no – 0 points**
- Extensibility of independent gas lines with flow controllers: **readiness for each controller – 2 points, max. 10 points**



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- Substrate holder which allows rotation: **without bias functionality – 5 points, with bias functionality – 10 points, no rotation – 0 points**

PVD & PE CVD deposition system

- Thin film homogeneity (higher than 95 %) over 4" substrate deposited by PVD (10 points = homogenous over the whole area): **(homogeneity in mm)/100 * 10 points**
- Readiness for CVD with linear antenna design installation in case when waveguide (slot or similar) distribution is used: **yes – 10 points, no – 0 points**
- Independent cluster source chamber pumping: **yes – 5 points, no – 0 points**
- Substrate holder which can be heated up to 1000 °C in O₂ atmosphere in rotation mode: **yes – 10 points, no – 0 points**
- Substrate holder which allows rotation with bias functionality: **yes – 5 points, no – 0 points**
- QCM – quartz crystal thickness monitor: **yes – 5 points, no – 0 points**
- RGA - residual gas analyzer: **yes – 5 points, no – 0 points**

Bidder completes the data for this criterion in the tables "Tab. 2a" and "Tab. 2b" in Annex No. 1 of the Draft Contract (Annex No. 3 of the TD).

The number of points obtained within this evaluation criterion is then recalculated by the weight of this criterion. See the formula below:

$$\text{Number of points} = \frac{\text{Score of the evaluated bid obtained within this criterion}}{\text{Highest score obtained within this criterion}} \cdot 50$$

8 ADDITIONAL REQUIREMENTS AND CONDITIONS

- 8.1 The Contracting Authority reserves the right to verify any information provided by bidders using third parties and bidders shall be obliged to provide the Contracting Authority all necessary cooperation in this matter.
- 8.2 The Contracting Authority reserves the right to alter or amend the TD before the deadline for submission of bids, such a change would be announced in the manner in which the TD was published. If the nature of the supplement or amendment of the TD requires, the Contracting Authority simultaneously reasonably extends the deadline for submitting bids.
- 8.3 The Contracting Authority does not admit variants of the bid.
- 8.4 Conditions for entering into a contract
The Contracting Authority requires from the selected supplier, within the framework of cooperation, before signing the contract pursuant to § 122 para. (a) of the Act, the submission of



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originals or certified copies of the qualification documents of the selected supplier, unless it has already been submitted within the procurement procedure.

- 8.5 The Contracting Authority emphasizes that for the conclusion of the contract, legal regulations require the consent of the concerned entities of the Contracting Authority (Supervisory Board) and its founder (Property Commission of The Czech Academy of Sciences). Without the prior written consent of the above entities the contract cannot be concluded.

9 OPENING OF BIDS

- 9.1 Opening of bids shall take place immediately after the expiry of the bid submission date referred to in paragraph 2.2 of the TD. The opening of the bids will take place electronically in accordance with Section 109 of the Act.

10 CONCLUSION

- 10.1 Information and data provided herein (incl. all Annexes) define the binding requirements of the Contracting Authority with respect to the performance of the public contract. These requirements must be accepted by the bidders in full and without reservation, respecting these requirements in preparation of their bid. Non-acceptance of these requirements / conditions (incl. those specified in the respective Annexes) shall be deemed to constitute failure to comply with the tender conditions.
- 10.2 Should this TD or its Annexes refer to specific commercial trademarks / products or solutions, or other designations or visual presentations having relation to a specific supplier / manufacturer, it shall be understood as delineation of an anticipated characteristics and the bidder is entitled to propose other technically or qualitatively fully compliant solution.

On behalf of the Contracting Authority:

In Prague

LIST OF ANNEXES:



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1. Cover sheet
2. Affidavit on compliance with qualification requirements
3. Binding draft contract with annexes
4. Registration to the system Tender arena



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