**Proceedings no. BZP.2710.50.2023.MG**

**Annex no. 3 to the ToR**

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| **DESCRIPTION OF THE OBJECT OF THE CONTRACT – TECHNICAL SPECIFICATIONS – MINIMUM REQUIREMENTS** |

**Delivery of an evaporator for the production of organic layers in UHV as part of IDUB, retrofitting the FAB scientific and research equipment.**

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| --- | --- | --- |
| No. | Minimum parameters required | Compatibility of the features required with those offered  The Contractor fills in by appropriate indication (YES or NO)\*.  and in the dotted place it clearly specifies the parameters\*\* of the equipment/device/subassembly it offers |
| **Technical parameters** | | |
| 1. | **3-cell evaporator of organic molecules operating in ultra-high vacuum (UHV) (subitems a-d)** | (YES/NO)\* |
| 2. | **a) Parameters of the UHV part of the evaporator** | (YES/NO)\* |
|  | Maximum evaporator length 390 mm | (YES/NO)\*   * Maximum evaporator length…………..mm |
|  | * Integrated linear travel in UHV (z-drive) 170 mm | (YES/NO)\* |
|  | * Integrated shutter that allows to operate one or two cells simultaneously. The shutter cannot go outside the dimeter of the evaporator | (YES/NO)\* |
|  | * CF40 flange mounting | (YES/NO)\* |
|  | * Work in the range of 293-1120 K | (YES/NO)\*  Work in the range of…………….. K\* |
|  | * Cooling shroud for water flow | (YES/NO)\* |
|  | * Accuracy of temperature determination: at least 1%; | (YES/NO)\*  Accuracy of temperature determination:……………% |
|  | * Evaporator heating time from 300 K to 620 K: no more than 10 min; | (YES/NO)\*  Evaporator heating time from 300 K to 620 K: no more than………… |
|  | * Cooling time of the evaporator from 623 K to 300 K: not more than 20 min; | (YES/NO)\*  Cooling time of the evaporator from 623 K to 300 K: not more than………. min |
|  | * “Cross talking" between cells, the temperature of the adjacent cell not higher than 370K while the first cell is kept at 620K, without water cooling | (YES/NO)\*  Neighbour cell temperature ("Cross talking") while the cell is being heated to 620K: ……………..\*\* |
|  | * Power requirements: less than 20 W at 1020 K cell temperature; | (YES/NO)\*  Power necessary to heat the cell to 1020 K, no more than …………………….\*\* |
|  | * Cell replacement without the need to vent the main chamber | (YES/NO)\* |
| 3. | **b) Power supply and operating controller**  • One microprocessor controlling the system  • RS485 interface | (YES/NO)\* |
| 4. | **c) Power and thermocouple cables throughout the measurement system**  • Allowing full temperature control over the system  Not shorter than 4 m | (YES/NO)\*  • Cable length …………………\*\* |
| 5. | **d) Replaceable quartz cells matched to the evaporator**   * • Od 6 pcs do 10 pcs | (YES/NO)\* |

I confirm that the offered equipment meets all the above parameters and requirements.

**Attention!**

This document must bear an electronic signature or a trusted signature or a personal signature, as appropriate, by the person(s) authorised to represent the Contractor / Joint Bidder

DESCRIPTION OF THE SUBJECT OF THE CONTRACT – TECHNICAL SPECIFICATION – MINIMUM REQUIREMENTS – to be submitted with the bid.