**ANNEX NO. 4b OF DOCUMENTATION OF THE PROCUREMENT PROCEDURE**

**-**

**SPECIFICATION OF THE PUBLIC CONTRACT SUBJECT for lot 2 of the public contract**

The subject of the public contract shall meet the following requirements for technical parameters and equipment:

|  |  |  |
| --- | --- | --- |
| **Technical specification**­­ **­– Cryogenic free beam confocal microscope** | | |
| **Designation of the delivery (min. brand and type)** | |  |
| **Individual technical parameters of the performance** | | **Data about the offered performance** |
| 1 | Microscope geometry:   * Back-scattering geometry as the default configuration * upgradeable to 90° (Voigt) geometry |  |
| 2 | Operating conditions:   * Temperatures: minimum range - 1.5–300 K * magnetic fields: 9 T (vertical) / 4 T (horizontal) * 14 T (vertical) | ***and will enter the actual value*** |
| 3 | Insert dimensions:   * length 1.4-1.7m * must fit a sample chamber with an inner diameter of 49.5 mm * using helium exchange gas * KF50 flange at the top with a window and an optional mirror holder * Maximum available space below magnet center 120 mm | ***and will enter the actual value*** |
| 4 | Positioning Mechanism:   * Positioning range: Minimum 4 mm in x, y, and z axes. * Closed-loop functionality with position encoders: * Resolution: better than 0.3 μm. * Repeatability: better than 3 μm | ***and will enter the actual value*** |
| 5 | Scanners - minimum scanning range:   * 40 μm × 40 μm × 40 μm at 300 K. * 25 μm × 25 μm × 25 μm at 4 K. | ***and will enter the actual value*** |
| 6 | Electronics: complete electronic control for positioners with encoders and scanners, fully compatible with 230 V, 50 Hz. |  |

|  |  |  |
| --- | --- | --- |
| 7 | Optical Specifications - objective:   * Low-temperature, high-field apochromatic objective optimized for optical spectroscopy, * Wavelength range (min.): 520–650 nm, * Numerical aperture (NA): 0.8 or better, * Lateral resolution: At least 0.5 μm, enabling high-precision Raman and photoluminescence mapping experiments. | ***and will enter the actual value*** |
| 8 | Sample Handling: samples must be mountable on a holder for quick exchange, exchange process must not require disassembly of major insert components. |  |
| 9 | Electrical Measurements: capability for additional electrical measurements with at least 6 electrical  contacts, wiring routed to room temperature |  |

Instructions for the participants:

*The participant fills in the data in the “Data about the offered performance” column, indicating for each item whether the performance offered by him meets the relevant request of the contracting authority (“****YES****”) or does not (“****NO****”).*