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CLARIFICATIONS

According to the Timetable in Tender dossier form 04 INSTRUCTIONS TO TENDERERS, PUBLICATION REF.: 1328 / Mining and Metallurgy Institute Bor / 78361/15.09.2015 / 02, Published in TED website: http://ted.europa.eu: 2015/S 229-417239, Contract title: Supply of Research Equipment for the POCAL Project, we, as Contracting Authority, issue the following clarifications:

Lot No: 1
Lot title: Scanning electron microscope (SEM-EDS)

Question 1:
In ANNEX II + III of TECHNICAL SPECIFICATIONS + TECHNICAL OFFER in Column 2 (Specification required) it is specified: Pre-centered W filament with possibility to retrofit LaB6 and additional conical Wehnelt cylinder.
Could we offer a better solution: pre–centred W filament system with second wehnelt cylinder (for fast filament change) and Beam Deceleration which provides resolution of LaB6 at low voltages without the hassle of the normal LaB6 drift/current stability issues?

Answer 1:
The mentioned specification is the minimum required.

Question 2:
In ANNEX II + III of TECHNICAL SPECIFICATIONS + TECHNICAL OFFER in Column 2 (Specification required) it is specified: Accelerating voltage up to 30 kV with variable in pre-defined steps not less than 100 V.
Could you please explain did you mean not greater than 100V?
Could we offer better System with smaller steps?
Smaller step is advantageous as it means the system allows precise tuning of beam penetration across the accelerating voltage range.

Answer 2:
We meant Accelerating voltage up to 30kV with variable pre-defined steps which are 100V or more.

Question 3:
In ANNEX II + III of TECHNICAL SPECIFICATIONS + TECHNICAL OFFER in Column 2 (Specification required) it is specified: Solid state backscattered electron detector (Topo, Compo, Shadow mode) with 5 gain modes, one for analysis; touch protection for BEI detector – mechanical and software.
Could you please explain the meaning of the Shadow mode?

Could we offer a better System with: backscattered electron detector which can show compo and topography mode? With engaged software and hardware touch alarm, and the individual 16 segments?

Answer 3:
The purpose of BEI Shadow mode is to obtain further interpretation of the 3D morphology and topography of sample structure using the shadowing effects. The mentioned specification is the minimum required.

Question 4:
In ANNEX II + III of TECHNICAL SPECIFICATIONS + TECHNICAL OFFER in Column 2 (Specification required) it is specified: Completely eucentric specimen stage and compucentric stage at all working distances and motorised in all 5 axes for the complete range of movement. Minimum stage motorized movements: - X = 120 mm; - Y = 100 mm; - Z = 80 mm (continuous); - Tilt = -10° to +90°; - Rotation = 360°.

Could we offer a better optimising System with: completely eccentric and compucentric specimen stage at all working distances and motorised in all 5 axes for the complete range of movement, with stage motorized movements: - X = 150 mm; - Y = 150 mm; - Z = 65 mm; - Tilt = -5° to +70°; - Rotation = 360°(continuous)?
We could provide additional Z movement based on sample mounting adjustment, and using a pre-tilt holder and rotation will allow extension of the mechanical sample tilt limits to cover the specified tilt range.

Answer 4:
The mentioned specification is the minimum required value.

Question 5:
In ANNEX II + III of TECHNICAL SPECIFICATIONS + TECHNICAL OFFER in Column 2 (Specification required) it is specified: Vacuum system with vacuum pumps as follows: - TMP – turbomolecular pump; - 2 x rotary pumps > 90 liters/min; - High vacuum mode: 10-4 Pa or less; - Low vacuum mode: 1 to 650 Pa or more.

Could we offer a better System with lower cost of operation?
With: -One turbo molecular pump,
-1 rotary pump and 1 vacuum buffer tank
-High vacuum mode: 6e-4 Pa;
- Low vacuum mode: 10 Pa – 130 Pa
- Extended vacuum mode: 10 Pa – 2600 Pa?

With one rotary pump and buffer tank there is reduced energy consumption and noise levels, due to the buffer tank holding the vacuum so the rough pump can turn completely off for periods of time.

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Answer 5:
The mentioned specification is the minimum required and it is in accordance to other technical properties of the SEM-EDS.

Question 6:
In ANNEX II + III of TECHNICAL SPECIFICATIONS + TECHNICAL OFFER in Column 2 (Specification required) it is specified: Possibility to measure probe current directly with in column PCD (probe current detector).
Could we offer a better solution for the Probe Current measurement, a System with on the stage probe current meter and current stability measurement?
A probe current measurement is recommended on the stage so the true specimen current is known. Measuring in the column may miss sample charging influences or other interferences and is not recommended.

Answer 6:
Possibility to measure probe current directly with in column PCD (probe current detector) is minimum required, as this is basis for state of the art analysis in order not to lose observation area.
Possibility for stage current measurement can be additionally offered.

(Published on the Contracting Authority web site on March 9th 2016)