

Tenderske dokumentacije za nabavku Dobara

Indetifikacioni broj: MOP br: IOP/09-2015/NCE/2

Predmet: Nabavka nove kapitalne opreme

Mesto: Republika Srbija

Sledeće izmene su načinjene u Tenderskoj dokumentaciji za nabavku Dobara:

- Originalni tekst Odeljka VII. Pregled zahteva, Tehnička specifikacija ANNEX I lot 32 - High pressure PVT equilibrium view cell, glasi:

High pressure PVT equilibrium view cell

1.High pressure PVT equilibrium view cell will be used for the determination of fluid phase transition parameters (vapor-liquid, liquid-liquid, vapor-liquid-liquid, solid-liquid) and solubility of gasses (for example CO₂) at pressures up to 700 bar and temperatures up to 150°C.

2.Operating conditions:

3.Operating pressure: up to 700 bar

Operating temperature: up to 150°C

4.The facility should include the following parts that are integrated into the system (requirements are mandatory):

5.High pressure variable volume equilibrium cell with 3 sapphire windows and one video camera aimed to follow the phase transition inside the view cell.

6.A view cell should contain pressure (precision better than 0.25%) and temperature (precision better than 0.1%) transducers and volume measurements with the precision better than 0.1%. The cell should contain several sampling ports and one port for sampling at high pressure.

7.Syringe pump to fill the cell with liquefied gas (for example CO₂)

8.A magnet stirrer and a magnetic bar

9.Bottom lid

10.The piston actuation for precise pressure adjustment with the indication of piston position

11.PC with adequate software for visualization and data logging.

12.Training:

13.Important note: the producer should enable the technical assistance and training that is included in the price.

14.Delivery and installation

15.Delivery time: 90 days

16. Warranty: 1 year

"17. Delivery place: Scientific Research Institution name: Tehnološko-metalurški fakultet u Beogradu, Karnegijeva 4, 11120 Belgrade, Serbia

je izmenjen sledećim:

High pressure PVT equilibrium view cell

1. High pressure PVT equilibrium view cell will be used for the determination of fluid phase transition parameters (vapor-liquid, liquid-liquid, vapor-liquid-liquid, solid-liquid) and solubility of gasses (for example CO₂) at pressures up to 700 bar and temperatures up to 150°C.

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7. Syringe pump to fill the cell with liquefied gas (for example CO₂)

8. A magnet stirrer and a magnetic bar

9. Bottom lid

10. The piston actuation for precise pressure adjustment with the indication of piston position

11. PC with adequate software for visualization and data logging.

12. Training:

13. Important note: the producer should enable the technical assistance and training that is included in the price.

14. Delivery and installation

15. Delivery time: 6 months

16. Warranty: 1 year

"17. Delivery place: Scientific Research Institution name: Tehnološko-metalurški fakultet u Beogradu, Karnegijeva 4, 11120 Belgrade, Serbia

-Originalni tekst Odeljka VII. Pregled zahteva, Tehnička specifikacija ANNEX I lot 8 – Multiple sensor O₂/CO₂ Chamber System, glasi:

20 Chamber O2/CO2/CO/H2S/NO2 Respiriometer

1	Multiple Sensor 20 Chamber Base System	1
	O2 Paramagnetic Oxygen Sensor 0-100%	1
2	CO2 Carbon Dioxide Sensor 0-1%	1
3	CO2 Carbon Dioxide Sensor 0-10%	1
4	CH4 Methane Measuring Option (0-5%)	1
5	CO Carbon Monoxide Measuring Option (0-10%)	1
6	H2 Hydrogen Measuring Option (0-2000ppm)	1
7	H2S Hydrogen Sulfide Measuring Option(200ppm)	1
8	NO2 Nitrogen Dioxide Measuring Option(150ppm)	1
9	10 Channel Condensing Air Dryer	2
10	Flask Assembly w/ 3 fittings (250 mL)	20
11	Wide Mouth (2.5") Flask with 1x1/8" & 1x1/4" fittings (500ml)	20

Additional items required to implement anaerobic research:

12	Flask Assembly w/ 3 fittings (1000 mL)	20
13	Flask Assembly w/ 3 fittings (2000 mL)	20
14	In-Line Check Valve (package of 50 pieces)	1

Spares and Consumable Items:

15	Flask Seal (100 mL to 2000 mL)(pkg 10 pieces)	2
16	Swagelok Ferrules (10pcs)	2
17	In-Line 0.2µm PTFE Air Filter (each)	2
18	Refresh/Calibration Gas Filter	2
19	In-Line Check Valve (package of 50 pieces)	2
20	12Kgs Drying Agent	1
21	H2 Hydrogen Sensor Cell	1
22	H2S Hydrogen Sulfide Sensor Cell	1
23	NO2 Nitrogen Dioxide Sensor Cell	1

Instrument has to be Suitable for these Standardized Aerobic and Anerobic Tests:

ASTM D5271:ISO 14855:EN 13432:Plastics in Compost

ASTM D5209: Plastics in Sewage Sludge

ASTM D5338: Plastics in Controlled Compost

ASTM D5988: Plastics in Soil

ISO 14852: Plastics in Aqueous Medium

ASTM D5210: Plastics in Sewage Sludge

ASTM D5511: Plastics under High Solids

ISO 15985: Digestion

Equipment calibration, maintenance and regular service

Delivery period: 90 days

Warranty period: 12 months

Operating Voltage/Frequency: 220V / 50 Hz

Scientific Research Institution name: Institute of Chemistry, Technology and Metallurgy – Centre of Chemistry, University of Belgrade. Address: Studentski trg 12-16, 11000 Belgrade, Serbia

je izmenjen sledećim:

10 Chamber O₂/CO₂/CO/H₂S/NO₂ Respirometer

- | | | |
|----|---|----|
| 1 | Multiple Sensor 10 Chamber Base System | 1 |
| | O ₂ Paramagnetic Oxygen Sensor 0-100% | 1 |
| 2 | CO ₂ Carbon Dioxide Sensor 0-1% | 1 |
| 3 | CO ₂ Carbon Dioxide Sensor 0-10% | 1 |
| 4 | CH ₄ Methane Measuring Option (0-5%) | 1 |
| 5 | CO Carbon Monoxide Measuring Option (0-10%) | 1 |
| 6 | H ₂ Hydrogen Measuring Option (0-2000ppm) | 1 |
| 7 | H ₂ S Hydrogen Sulfide Measuring Option(200ppm) | 1 |
| 8 | NO ₂ Nitrogen Dioxide Measuring Option(150ppm) | 1 |
| 9 | 10 Channel Condensing Air Dryer | 1 |
| 10 | Flask Assembly w/ 3 fittings (250 mL) | 10 |
| 11 | Wide Mouth (2.5") Flask with 1x1/8" & 1x1/4" fittings (500ml) | 10 |

Additional items required to implement anaerobic research:

- | | | |
|----|--|----|
| 12 | Flask Assembly w/ 2 fittings (1000 mL) | 10 |
| 13 | Flask Assembly w/ 2 fittings (500 mL) | 10 |
| 14 | Check Valve (package of 20 pieces) | 1 |

Additional items required to implement high volume open-flow research:

Air Pump (20 LPM) 1

Open Circuit Option for 10 Chambers 1

Spares and Consumable Items:

15 Flask Seal (100 mL to 2000 mL)(pkg 10 pieces) 2

16 Swagelok Nut 2

17 In-Line 0.2 μ m PTFE Air Filter (each) 2

18 Refresh/Calibration Gas Filter 2

19 In-Line Check Valve (package of 50 pieces) 2

20 Drying Agent 1

21 H₂ Hydrogen Sensor Cell 1

22 H₂S Hydrogen Sulfide Sensor Cell 1

23 NO₂ Nitrogen Dioxide Sensor Cell 1

Instrument has to be Suitable for these Standardized Aerobic and Anerobic Tests:

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ISO 15985: Digestion

Equipment calibration, maintenance and regular service

Delivery period: 90 days

Warranty period: 12 months

Operating Voltage/Frequency: 220V / 50 Hz

Scientific Research Institution name: Institute of Chemistry, Technology and Metallurgy –
Centre of Chemistry, University of Belgrade. Address: Srudentskitrg 12-16, 11000 Belgrade,
Serbia

Molimo vas da u prilogu pogledate modifikovan LOT 32 I LOT 8, ANNEX I, Tehnička specifikacija.

Svi ostali uslovi Tenderske dokumentacije ostaju nepromenjeni.



Gorenavedene izmene su sastavni deo Tenderske dokumentacije.