

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.Importan 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: Tehnolosko-metalurski 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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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: Tehnolosko-metalurski 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 Respirometer

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 0.2µm 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

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ASTM D5209: Plastics in Sewage Sludge

ASTM D5338: Plastics in Controlled Compost

ASTM D5988: Plastics in Soil

ISO 14852: Plastics in Aqueous Medium

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Equipment calibration, maintenance and regular service

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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

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

Svi ostali uslovi Tenderske dokumentacije ostaju nepromenjeni.

A handwritten signature in black ink, consisting of several overlapping, stylized strokes.

Gorenavedene izmene su sastavni deo Tenderske dokumentacije.