

Announcement on public procurement

According to § 281 - § 288 of the Act No. 513/1991 Coll. Commercial Code as amended
valid in Slovak Republic

Announcer:

Company: Environmental Institute, s.r.o.
Seated: Okružná 784/42
97241 Koš
ID Number: 36017680
VAT Number: SK1020279964
Statutory: Dr. J.Slobodník
Contact person: Ing.P.Oswald, PhD.
Tel./Fax: ++421 (46) 5430917

announces **public procurement on selection of laboratory equipment delivery** of comprehensive gas chromatograph GCxGC with flow modulator equipped by mass selective detector and electron capture detector, within a project APVV-VMSP-P-0064-09 „The development of analytical methods for determination of problematic compounds included in Water Framework Directive (2000/60/ES), according to § 281 - § 288 of the Act No. 513/1991 Coll. Commercial Code

The delivered laboratory equipment must consist of following parts:

1. Gas chromatograph
2. Injector
3. Autosampler
4. Mass selective detector
5. Electron capture detector
6. Modulator for comprehensive two dimensional GC analysis
7. Data collection and evaluation system
8. Operation system and software for full operation control and data collection from delivered equipment, MS libraries
9. Consumables

A. Technical specification

1. Gas chromatograph

- Temperature range: ambient to + 450 °C
- Minimum increment: 1 °C/min
- Temperature stability: ± 0.5 °C or better
- Operating with CO₂ cryogenic cooling: -40°C to 450°C
- Programmable temperature gradient rate
- Minimum 18 programmable temperature ramps
- Fast ramp rates for fast-GC operation, maximum 100 °C/min
- Automatic cooling down to initial temperature after analysis (cool down 450 °C to 50 °C in 5 min)
- Automatic heating shut-down after exceeding the maximum temperature
- Compensation for barometric pressure and ambient temperature changes
- Electronic pressure/flow control of all gases including detector and injector
- Temperature and flow monitoring in real time
- The possibility to add additional detectors (FID, TCD etc.)

2. Injector

- Injector allowing programmable temperature
- Minimum increment: 0,05 °C/min
- Maximal increment: 700 °C/min
- Full electronic pressure/flow control and velocity of carrier gas
- Split/splitless injector with electronic pressure and flow control
- Minimum pressure increment for carrier gas control : 0,01 kPa in range 0.0 - 150 psi
- Allowing large volume injection up to 50 μ l
- split/splitless inlets with electronic pressure/flow control (EPC), temperature control up to 450 °C, allowing various modes of operation (constant pressure and constant flow) for high pressure applications

3. Autosampler

- Must be compatible with delivered injectors
- Range of injection volume: 0.5 – 50 μ l
- Multiple pre- and post-injection cleaning cycles
- Operator selectable parameters, typically to include:
 - Number of filling strokes
 - Filling volumes
 - Delay time after each filling stroke
 - Injection volume
 - Time from septum penetration to injection
 - Injection speed
 - Time from injection to needle withdrawal
 - Variable sampling depth
- Must be easily mounted and dismounted without the use of tools for quick installation
- Controlled by the GC and its software (not by a separate device)
- Capacity of at least 100 sample vials with volume 2 ml
- Area reproducibility better than 0.5% RSD

4. Mass selective detector

- Mass range 10 – 1000 amu in 0.1 amu steps
- Automatic tuning for both positive and negative chemical ionization
- Selected ion monitoring capability, Synchronous SIM/SCAN operation
- Operator selectable quadrupole, independent interface and ion source temperatures
- Ion sources from inert material
- SCAN - Minimum EI sensitivity for 1 pg/ul OFN, S/N 100:1 at m/z 272
- SCAN - Minimum NCI sensitivity for 100 fg/ul OFN, S/N 300:1 at m/z 272
- Linear dynamic range over six orders of magnitude
- Unit resolution across full the mass range
- Vacuum system turbomolecular pump capable for CI
- User selectable Ionization energy from 5 – 100 eV

5. Electron capture detector

Suitable for one dimensional as well as comprehensive setups with flow modulator

- Full compatibility with GCxGC system
- Radioactive element ^{63}Ni
- Cell volume suitable for comprehensive two dimensional comprehensive GC operation
- Full electronic flow control of all detector gasses
- Fast data acquisition rate up to 200 Hz
- Minimum detectable amount: <0.006 pg/sec (for lindane)
- Linear dynamic range: $>5 \times 10^4$
- Mixture for checking sensitivity
- Ferrules and nuts compatible with the detector including blind ferrule
- Detector connection must allow independent data collection and data evaluation from two detectors

6. Modulator for comprehensive two dimensional GC analysis

Flow modulator for comprehensive GCxGC with pneumatic and electrical controlling device

- Must contain all gasses, fittings and connections including regulators needed for automated operation
- Electronically controlled
- Must allow to monitor its status and control it directly through the GC software

7. Data collection and evaluation system

- PC 3.0 GHz RAM 4 GB HDD 500 Gb, Monitor 22" TFT, with LAN connector, DVD/RW, modem
- Laser printer with built-in networking capability

8. Operation system and software for full operation control and data collection from delivered equipment MS libraries

- Operating system MS Windows
- MS Windows based software for control, data acquisition and evaluation of chromatographic data obtained by gas chromatograph

- Libraries based on retention time indices for environmental pollutants with their mass spectra
- Mass spectral libraries
 - Latest NIST MS library including NIST MS Search and Deconvolution Programmes and Chemical Structures library, Pesticide library
- Data collection from GCxGC experimental setup

9. Consumables

Spare septa 100 pc, high temperature septa 100 pc, liners for large volume injection, split and splitless injection 10pc/per each, O-ring seals 10pc,

Columns compatible to followed stationary phases:

HP-5ms – 30 m x 0.25 mm x 0.25 um,

HP-5ms – 60m x 0.25 mm x 0.25 um,

DB-5ms - 20 m x 0.18 mm x 0.36 um,

DB-624 - 60 m x 0.25 mm x 1.4 um,

DB-XLB - 30 m x 0.25 mm x 0.25 um,

HP-INNOWax, 5m, 0.25mm, 0.15um,

DB-Wax – 10 m x 0.1 mm x 0.1 um.

Ferules:

Graphite/Vespel ferrules 20 pc

SilTite ferrules 20 pc per each column diameter

Device allowing connection of two columns

Syringes: 10ul, 25ul, 100ul, 250ul, 500ul

Required valves, required cleaning devices for all gasses

Carrier gas splitter, fully controlled from GC software together with required mounting kit

The maximal price is 130 000 Eur (VAT is not included). The location of project implementation is the seat of Company.

B. Conditions of tender

- a) Any national or foreign physical or legal entity can participate at this public tender until 15th December 2009.
- b) proposal must be submitted in sealed envelope, marked with the name of bidder and labeled „EI – public procurement“. The envelope must contain:
- price proposal
 - proposal of contract
 - contact details
 - e-mail address for electronic communication
- c) Announcer will exclude from public procurement any bidder, which will not comply with conditions in a), b) or if the submitted documentation is not actual
- d) Envelope with proposal must be delivered to the seat of announcer, to be recorded latest by 15th. December at 10.00. Proposal delivered after this date and time or proposal which will not comply with one of the tender conditions, will not be considered.
- e) Evaluation of proposals will be held in the seat of announcer on 16th December afternoon. The announcer will publish information on successful bidder on the website of company by 17th December 2009 at the latest. Announcer will inform unsuccessful bidders about results of the tender by email provided in the proposals.
- f) Evaluation of proposals will be in line with to §286 para 2 of Act No. 513/1991 Coll. of Commercial Code as amended

Further conditions of announcer

- a) The announcer reserves the right to change the conditions of the tender or to cancel it according to §283 of Act No. 513/1991 Coll. of Commercial Code as amended.
- b) The announcer reserves the right to refuse all submitted proposals according to §287 of Act No. 513/1991 Coll. of Commercial Code and to close the tender as unsuccessful
- c) The announcer reserves the right to prolong deadline for announcement of tender results.
- d) Proposers are not eligible for compensation of costs related to participation in this public tender.

C. Payment conditions

The payments will be done in form of several instalments. The first instalment will be maximum of 42855 EUR and will be disbursed after signature of the contract, 31.Dec. 2009 the latest. The time frame and amount of next installments will be specified in the contract.

Dates:

Announcement of tender: 30.11.2009

Deadline for applications: 15.12.2009 at 10.00 hour

Evaluation of proposals: 16.12.2009

Publishing of information on contract award on website of announcer: until 17.12.2009

Contract signature: until 18.12.2009

Koš, 27.11.2009

Dr. J. Slobodník, director

Annex 1 of Announcement on public procurement

The contract proposal should contain the following information:

1. Announcer:

Name: Environmental institute, s.r.o.
Seated: Okružná 784/42
97241 Koš
ID number: 36017680
VAT Number: SK1020279964
Represented by person, authorised to sign the contract: Dr. J.Slobodník

2. proposer:

Name:
Seated:
ID Number:
VAT Number:
Bank name:
Account No:
Represented by person, authorised to sign the contract

3. Subject of contract: according to specification.

4. Duration of contract: in line with project implementation 2 years from contract signature.

5. Calculation of costs for contract subject in EUR, (with remark “price without VAT”).

6. Payment of for the delivery will be realised in form of instalments according to point C of the announcement on public procurement.

7. Method of payment: to the bank account of supplier .

8. Method and time frame of delivery will be agreed within the contract.