

PURCHASE CONTRACT

č. 094/04Z/PJ/2017

CONTRACTING PARTIES:

BUYER: PALACKÝ UNIVERSITY IN OLOMOUC
Office: Křižkovského 511/8, 771 47 Olomouc, Czech Republic
Rector: Mgr. Jaroslav Miller, M.A., Ph.D.
Person authorized to act in technical matters: [REDACTED]
Ident. no.: 61989592
Tax Ident. no.: CZ61989592
Bank contact: [REDACTED]

(hereinafter referred to as "Buyer")

and

SELLER: IPS Elektroniklabor GmbH & Co. KG
Office: Am Eppertshäuser Pfad 2, D-64839 Münster
Registration in Companies Register: HRA 85343 Amtsgericht Darmstadt
Statutory body: juristic Person
Person authorized to act in contractual matters: [REDACTED]
Person authorized to act in technical matters: [REDACTED]
Ident. no.: 008 330 30241
Tax Ident. no.: DE297775652
Bank contact: [REDACTED]
Account no.: [REDACTED]

(hereinafter referred to as "Seller")

are closing on the bellow stated day, month and year according to provision of Section 2079 of the Act no. 89/2012 Coll., Civil Code, as amended this purchase contract (hereinafter referred to as "Contract"), in the framework of the project "Advanced Hybrid Nanostructures for Renewable Energy Applications" Reg. No. CZ.02.1.01/0.0/0.0/15_003/0000416, Within the Operational Program Research, Development and Education.

The Buyer and the Seller enter into this Contract due to the fact that the Seller's bid for delivery of the subject of performance hereof has been selected by the Buyer as the best bid in the tender called „RCPTM - Potentiostats: Potentiostat/Galvanostat for High voltage Potentiostat/Galvanostat).

I. Subject of the fulfillment

1. The Seller undertakes, under this contract, to deliver to the Buyer a High voltage Potentiostat/Galvanostat together with all the accessories (hereinafter referred to as the

"Goods") and the technical specifications mentioned in the Seller's offer dated at 04. August 2017, that is an integral part of this contract as its Annex No. 1. The Seller is not entitled to deliver goods in larger quantity as stated in § 2093 Civil Code. Both parties to this contract agreed that the application of provision § 2099(2) Civil Code be excluded and thus will not apply.

2. The Seller hereby undertakes to surrender the Goods specified in Annex no. 1 to this Contract to the Buyer and allow him to acquire title to it, to carry out the installation of the goods, provide the training to the staff in the place of delivery, provide the warranty service and guarantee the after-guaranty service under the conditions stipulated by this contract.

3. The Buyer agrees to take over the Goods and pay the seller the purchase price in the way and on the day agreed in this Contract.

4. The Seller declares pursuant to Section 2103 Civil Code, that the Goods is without any faults or defects.

5. The Goods shall be fully functional, new, not refurbished, without any additional costs or expenditures necessary to be paid by the Buyer.

II. Term and place of delivery

1. The Seller undertakes to deliver and install the goods at the place of delivery, including the delivery of all legal documents to the goods, the execution of all tests verifying the fulfillment of the technical parameters given in this contract, the training of the purchaser's users by a qualified employee within the scope of Article V paragraph 1 of this Contract, no later than 56 days after the effective date of this Contract.

2. Place of delivery: Regional Centre of Advanced Technologies and Materials, Faculty of Science of UP in Olomouc, Šlechtitelů 27, 771 46 Olomouc, Czech Republic. Person authorised to take over the delivery on the basis of a handover protocol: [REDACTED] or a person authorised by her to take over the goods.

3. Both parties agreed, that Section 2126 and Section 2127 Civil Code on self-help sale will be excluded and thus shall not be applicable in the case of delay in take-over of the Goods by the Buyer.

III. Purchase price

1. The purchase price is set by an agreement of the contracting parties CZK 535.000,- without VAT.

2. The purchase price covers all the costs related to the supply of the goods (in particular the transport to the place of delivery, insurance, customs duties, fees, licence fees and copyrights, installation and arranging for training, delivery of all legal documents to the goods, the warranty service).

3. The purchase price is set as a fixed price, the highest acceptable and maximal, covering all the costs related to the supply of the goods. The purchase price may be modified only on the condition that the VAT rate changes after the conclusion of the present contract.

4. The Seller takes the responsibility for the fact, that the VAT rate at the time of invoicing is stipulated in compliance with the legislation.

IV. Payment terms

1. The payment for the supply will be made on the basis of a due tax document (invoice) containing all relevant particulars, within a maturity date of 30 days following the day of its delivery to the Buyer. The invoice will be issued by the Seller not sooner than after delivery of the goods, after its right and full installation, delivering the documents required by law, relevant documentation and instruction to use, staff-training in the place of installation according the Section V. 1 of this contract, which will be confirmed by the protocol for the supply and installation of goods. The document on a due fulfillment of obligations by the Seller specified in the preceding sentence is a dated handover protocol signed by authorized persons of both contracting parties.

2. The invoice issued by the Seller must include all tax document prerequisites in accordance with Act No. 235/2004 Coll. on value added tax as amended and the prerequisites of a commercial deed pursuant to Section 435 of the Civil Code as well as identification of the contract, on the basis of which the fulfilment has been provided. The Seller shall affix the invoice with the stamp and signature of the person authorised to issue the invoice.

3. If the invoice issued by the Seller does not contain any of the obligatory particulars or if the Seller incorrectly invoices the price or the VAT, the Buyer is entitled to return such invoice to the Seller before the expiration of its maturity date for the correction, stating the reason of its returning. The Seller shall correct it by issuing a new invoice. The initial maturity date stops running on the day of sending the incorrect invoice to the Seller and a new maturity day starts running on the day of the delivery a new invoice to the Buyer.

4. The contracting parties agree that the obligation to pay the purchase price is fulfilled on the day when the given sum is sent from the Buyer's account to the Seller's account given above in this contract.

5. The Seller declares, that he takes the risk of Clausula rebus sic standibus pursuant to Section 1765(2) of the Civil Code and Section 1765(1) and Section 1766 of the Civil Code is excluded and thus inapplicable.

V. Installation and the staff – training

As part of the installation of the goods at the place of delivery, the Seller is obliged to prove, but not exclusively, the full functionality and fulfillment of all the parameters of the goods in accordance with the offer of the Seller, which will form an integral part of the contract (Annex 1 of the contract).

The Seller undertakes to carry out basic training of the delivered goods which is a condition for the due handover and reception of the device within the following scope:

- The basic training of the Buyer's system engineer covering basic operations and routine service actions specified in the points below lasting for 1 day (8 hours each) for at least 2 persons of the Buyer. The training shall be led by qualified service technician or application specialist:

- training and demonstration for cyclic voltammetry, chronoamperometry, chropotentiometry, IR drop measurements, open circuit voltage, high voltage anodization;
- training on usage of software package related to the potentiostast,

All the trainings shall take place at the place of the device installation, unless agreed otherwise in writing by the persons authorised by the contracting parties to act in technical matters. Precise dates of the respective trainings shall be agreed in a sufficient advance by the person authorised by the buyer to act in technical matters. All the costs related with the above-mentioned trainings (including the stay of service technicians, application specialists or specialists of the suppliers of the accessories) are paid by the Seller.

VI. The Seller's responsibility for defects

1. The Seller provides to the Buyer a warranty for the quality of the Goods according to § 2113 and follow. Civil Code within the period of 24 months since the day of signing the protocol according to article IV(1) of this contract.

2. Seller guarantees promptness of service in the warranty period free of charge within 2 workdays following the day of reporting the defect, unless agreed otherwise in a written form by persons authorized by the contracting parties in technical matters. During the guaranty period, the respective defects shall be removed within 15 calendar days at the latest after the day of the start of the defect removal unless otherwise agreed in writing by persons authorized by contracting parties for technical matters. The seller is obliged to provide repairs in the place of delivery. Shall that be technically impossible, the seller shall take over the device in order to repair it after signing a written record stating suggested procedure agreed by the person authorised to act in technical matters for the contracting person. The contracting parties have agreed that § 2110 Civil Code shall not apply. The buyer is entitled to withdraw from the contract for the defects or to require the delivery of new goods irrespective of the fact that the goods might be returned to the seller or possibly return the goods in the quality as it was received by the buyer.

3. In addition, the seller undertakes to provide a free full service of the delivered device and software, including updates and regular service inspections prescribed by the manufacturer of the delivered equipment for the whole duration of the guaranty period (free guaranty service of the delivered goods). The costs related with the full guaranty service of the delivered goods are included in the applicant's offer price.

VII. Affirmation of commitment

1. The Contracting Parties shall, in the event of a breach of the contractual obligation, enter into contractual penalties in the form provided for in the following paragraphs of the Contract. Neither contractual Contracting Party considers that the contractual penalties are disproportionate in relation to the value of the individual contractual obligations.

2. In the case of Seller's delay with delivery of any part of the Goods according to the period stated in the section II.(1) of this Contract, the Buyer will be entitled to a contractual penalty amounting 1.000,- CZK without VAT for each started day of the delay with its delivery.

3. The seller undertakes to pay to the buyer contractual penalty amounting to 1.000,- CZK without VAT for each starting day after the lapse of time for repair in the warranty period in compliance with this contract for each particular case.
4. The parties have agreed that arranging the contractual penalty pursuant to this Section does not affect the right of the Buyer for the compensation of the damages arisen from the breach of the duty strengthened in VI(1) of this Contract. That means that contractual parties have agreed on exclusion of application of Section 2050 Civil Code.
5. The maturity date of the charged contractual penalties is 30 days from the day of delivery of their written statement to the given contracting party and the day of payment means the day of debiting the contractual penalty from the account of the given contracting party to the account mentioned in the statement of the contractual penalty.
6. The parties have expressly agreed that the buyer is entitled to offset against any buyer's claim both for the buyer and for the buyer, any claim against the seller, even the invalid. Receivables from the buyer and the seller are canceled with the offsetting of the amount they cover, and these effects occur as soon as the buyer delivers the statement of netting to the seller.

VIII. Final provisions

1. With respect to the provision of section 2, letter e) of Act no. 320/2001 Coll. on the Financial Inspection in Public Administration, as amended, the Seller is a person obliged to cooperate during the performance of the financial inspection. These Seller's obligations also apply to his contractual partners involved in the fulfillment of the contract.
2. The Buyer reserves the right to publish the contents of the concluded Purchase Contract.
3. The contracting parties expressly agreed that all the rights and obligations under this contract, as well as the rights and obligations arising from this contract, will be settled in accordance with the appropriate provisions of the code no. 89/2012 Coll., Civil Code and the law of the Czech Republic.
4. The provisions of this contract are separable. If any part of an obligation under this contract is or becomes invalid or non-enforceable, this shall not affect the validity and the enforcement of other obligations under this contract and the contracting parties undertake to replace such invalid or non-enforceable part of obligation with a new, valid and enforceable part of the obligation, the subject of which will correspond at the best to the subject of the original obligation. If the contract does not contain a provision which would be justifiable for the determination of the rights and obligations, the contracting parties will make all the efforts to implement such provision in the contract.
5. The contracting parties may modify or complete this contract only in the form of written amendments numbered in the increasing order, expressly declared as amendments to this contract and signed by the authorized representatives of the contracting parties.
6. The Buyer is entitled in accordance with § 2001 Civil Code to withdraw from this contract for its substantial breach by the Seller; the substantial breach means:
 - the delay of the contractually determined term of delivery of the subject of the contract by more than 10 days,

- a failure to observe the technical specifications of the goods mentioned in the Seller's offer.
- delay of the seller in repairing and removing the defects by more than 10 days.

The withdrawal from the contract shall be made in a written form and becomes effective on the day of the delivery of the written notice to the other contracting party.

7. The Seller is not entitled to cede his rights and obligations under this contract to a third person without the Buyer's approval.

8. The Seller acknowledges that this Contract, including all its Annexes, is subject to mandatory disclosure under Act No. 340/2015 Coll., The Register of Contracts.

9. This Contract shall enter into force on the date of its signature by the last Participant of this Contract and effective as of the date of publication of this Contract in the register of contracts pursuant to Act No. 340/2015 Coll.

10. This Purchase Contract is made in five copies considered as originals, signed by the authorized representatives of the contracting parties; the Buyer will obtain three copies and the Seller will obtain two copies.

11. The following Annexes form an integral part of this Purchase Contract:

Annex 1 – Seller's offer dated 04. August 2017

- 6. 11. 2017
In Olomouc, on

prof. Mgr. Jaroslav Miller, M.A., Ph. D.
rector of Palacký University in Olomouc

In Münster on 14.09.2017

IPS Elektroniklabor GmbH & Co. KG

IPS Elektroniklabor GmbH & Co. KG • Am Eppertshäuser Pfad 2 • 64839 Münster

Univerzita Palackého v Olomouc

Křížkovského 511/8

CZ-77147 Olomouc

Czech Republic

Quotation No.: 47082

Münster den 04.08.17

Dear Ladies and Gentlemen,

Referring to your Tender Reg. No. CZ.02.1.01/0.0/0.0/15_003/0000416 we offer an Instrument for the 2. Part of the public contract: High voltage Potentiostat/Galvanostat you as follows:

1 Piece PGU 200V-2000mA-IF

Price: 535.000,- CZK without DPH

The features of the instrument are:

Analog design, 3 or 4 Electrodes for the connection of the cell, Compliance voltage max. $\pm 220V$, Polarisation voltage max. $\pm 200V$, Current max. $\pm 2000mA$, 8 Current Ranges down to $1\mu A$, Resolution 0.1 % of the selected current range. Build in Instruments for Compliance voltage, Current and Polarisation potential, 2 internal Setvalues and 2 Input connectors for external Polarisation voltage.

The Instrument includes an Interface with 24 Bit A/D Converters for data acquisition and a 26 Bit D/A converter (Scanner) for Polarisation (lowest step is $6.6\mu V$), the measurement software EcmWin and the Evaluation Software EcmView.

A Faraday cage as safety part with door switches is part of delivery. As long as the door is open, no measurement can start. An additional circuit board breaks the circuit in case of an overload in each range. Connection cables are included.

User can select the best range at the begin of measurement, during the experiment the auto range function can used or user select the range by hand. Connection to the computer at an USB port.

The instrument will delivered full calibrated.

Documentation of the Instrument and the software is part of delivery.

PC is not part of delivery.

PGU-200V



Overview

Potentiostat, Galvanostat

- Higher polarisation voltage
- Measurement resolution (24 Bit ADC)
potential 20 μ V, current 100fA
- Lowest Scan step (26 Bit DAC) 6,6 μ V

Description

The **PGU 200V** are our high voltage Potentiostats/Galvanostats. For some applications customers need a higher compliance voltage and sometimes also a higher polarisation voltage. For this purpose, we designed the **PGU 200V** with a compliance voltage of $\pm 220V$ and a polarisation voltage of $\pm 200V$. The maximum current range is 2A. With a this higher voltage ranges up to $\pm 220V$ and polarisation voltage up to $\pm 200V$ (if the cell conditions allow this) and output current 2000mA this **PGU** is designed for special jobs in coating research and development (nano tubes and anodizing).

This potentiostat can also be used in manual mode (for simple experiments). However, according to the experience of recent years, this device is primary designed for computer control. Our build-in interface takes over all functions for our standard potentiostats. All high voltage instruments are supplied with a Faraday cage for shielding and safety. The cage is equipped with door switches, which disable the compliance voltage output when the door is opened. Furthermore we installed an additional circuit, that switch off the compliance voltage, when in each range the current exceeds the maximum around 15%.

The measurement of the current is done with a difference amplifier (Resistor to GND, reference electrode with working sense line). The current of the **PGU 200V** can be switched in 8 steps from 2000mA to 1 μ A. The potentiostat has instruments for current (in % proportional to the selected current range), the cell-potential and the compliance voltage. It has switches to set the current range and the mode OCP and closed circuit in manual use. For polarisation there are two build in potentiometers and two BNC-connectors to set potential internal and/or from an external source. This is especially helpful for easy experiments in manual mode. For the automatic mode have a look at the features of our software **EcmWin**.

The IR-Drop Compensation works with the positive feedback method.

Technical Details

Setup	
Potential Instruments	Digital, 4 ½digit, ± 199.99 V
Compliance Voltage Instrument	Analoque as compliance voltage
Instrument for current	Analoque, 0 - ± 100%, proportional to the selected range
Set-Potential Potentiostat	2 inputs for extern voltage, 2 potentiometers internal, internal scanner
Set-Potential Galvanostat	2 inputs for external voltage, 2 potentiometers internal, internal scanner
Current ranges	Manually or autorange, 8 ranges
Working mode Potentiostat/Galvanostat	automatic via EcmWin
OCP / closed circuit	manually and automatic
recommend frequency range	0 to 1 kHz (depending on the selected current range)
IR-Drop compensation	Positive feedback
Set values	
Internal	
Potential with potentiometers	±50V and ± 100V
Potential with scanner	±200V
Potential for current	±1000 mV for maximum of the selected range
External	
Potential Input	±10V as ±200V, 2 BNC Connectors
Current Input (Potential)	±1V for maximum, 2 BNC Connectors, work added
Outputs	
Potential Output	±10V as ±200V
Current Output	±2000mA max. as proportional voltage ±10V
In-/Out Resistance	
Input resistance of reference electrode	approximately $10^{11} \Omega$
Input resistance for external Setpotential	10 K Ω (U- and I-Input)
Rise speed/rise time	1.000V/sec. = 10 μ s/V
Current measurement	
Analog	
Current range	2000mA (4000mA) to 1 μ A
Resolution	0,5 % (0.1%)
Current output	8 Ranges, 10000mV
Potential measurement	
Analog	
Potential output	±200V divided to ±10V 0,5%
Digital-potentialmeter	4½digits, to ±199.99 V, 0,5%
Compliance voltage	± 220 V
Zero stability	
At main power fluctuation of 10%	approximately 2 mV
Noise	approximately 5 mV (50 Hz)
Drift	approximately 5 mV/Tag; ca. 20 μ V/°C
Phase shift	smaller 3° at 1 kHz
Log. output	No
Autoranging	Yes