

**Centre for Bioinformatics
School of Life Sciences
Pondicherry University
Puducherry-605014**

Sealed quotations under single bid systems are invited for the purchase of the **Oxygraph-Oxygen Electrode system along with compatible UPS**, under CSIR research project. The quotations duly signed and sealed should be submitted to **Dr. A. Dinakara Rao, Professor, Centre for Bioinformatics, Pondicherry University, Puducherry-605 014.**

The quotation/Limited Tender should be sent by post (normal/speed/Registered/courier) only. The price quoted should include all the costs such as delivery, installation, testing etc and also inclusive of all taxes. Warranty terms should be explicitly specified in your quotation. The technical specifications are given below. Last date for receiving quotation/Limited Tender is **19.11.2018**

Name of the required item: Oxygraph-Oxygen Electrode system along with compatible UPS (1No).

TECHNICAL SPECIFICATION (LIQUID-PHASE OXYGEN ELECTRODE SYSTEM FOR RESPIRATION & PHOTOSYNTHESIS STUDIES)

- *PC operated oxygen electrode control unit with USB connectivity*
- *Clear cast acrylic DWI/AD oxygen electrode chamber with integral Clark type polarographic oxygen electrode*
- *Suitable for liquid-phase samples with 0 – 100% oxygen concentration*
- *24-bit high resolution measurement of oxygen signals*
- *Integral systems for measurement of pH. pH Electrode should be quoted as optional*
- *System expansion to 8 channels via purchase of additional systems*
- *OxyTrace+ Windows® software for data acquisition, hardware control & data analysis*
- *Real time 0 – 4.5v analogue output of oxygen electrode signal*

TECHNICAL SPECIFICATIONS OF ELECTRODE CONTROL UNIT

Measuring range: Oxygen: 0 - 100% | pH: 0 - 14pH | Aux: 0 - 4.096V
Signal inputs: Oxygen electrode (SMB) | pH/ISE (BNC) | Auxiliary (8 pin Mini Din)
Resolution: Oxygen: 0.0003% (24-bit) | pH: 0.0006pH (16-bit) | Aux: 62.5µV/bit (16-bit)
Polarising voltage: 700mV
Input sensitivity: 0 - 9000nA
Magnetic stirrer: Software controlled 150 - 900rpm in % steps
Sampling rate: 0.1 - 10 readings/s
Electronics: Microcontroller: 16-bit high performance CPU running at 32 MHz
ADC: Dual, Low power, 16/24 Bit Sigma Delta
Communications: USB2.0
Analogue output: 0 - 4.5V O₂ signal

Dimensions (HWD): 200 x 110 x 60mm
Weight: 0.45 Kg
Power: 12V dc @ 100mA, 90Vac – 264Vac @ 1A

TECHNICAL SPECIFICATIONS OF ELECTRODE CHAMBER

Suitability: Liquid-phase respiration/photosynthesis
Construction: Clear cast acrylic
Sample chamber: Precision bore, borosilicate glass tube
Sample volume: 0.2 - 2.5ml
Temperature control: Water jacket connected to thermoregulated circulating water bath
Dimensions (DH): 65 x 105mm
Weight: 100g
Plunger: Variable height plunger assembly with central bore for sample additions

OXYGEN ELECTRODE DISC

Electrode type: Clark type polarographic oxygen sensor
Electrode output: Typically, 1.6 μ A at 21% O₂
Residual current: Typically 0.04 μ A in 0% O₂
Response time: 10 - 90% typically < 5 seconds
Oxygen consumption: Typically <0.015 μ mol/hr-l

TERMS AND CONDITIONS

I. General Information:

- a) **Last date and time of receipt of the Limited Tender: 19-11-2018 at 3.00 PM**
- b) Quotation/ Limited Tender document Fee: Rs.500/-
- c) EMD rates: Rs.12, 000/-
- d) Quoting merely the lowest price does not confer any right to any bidder for award of supply order. The University's Purchase Committee, reserves the right to select the equipment any bid under the grounds of specification compliance, technologically advanced quality, proven performance track record, brand reputation, service backup support & training, offer of additional / special features, Compatibility with the existing System, etc.
- e) The Quotation/Limited Tender Document Fee and EMD should be submitted along with your quotations.
- f) The Tender must be submitted along with the stipulated EMD fee in the sealed cover, superscripting "**Tender for Oxygraph-Oxygen electrode system**". The name and address of the bidder should also be mentioned at the "From address" space.

g) The Tender should be addressed and posted to the following address by speed, registered post or by courier.

Dr. A. Dinakara Rao, Centre for Bioinformatics, Pondicherry University Puducherry – 605 014

h) Limited Tenders will not be accepted through fax / e-mail.

II. Common Conditions (Import or Indigenous)

1. Price Schedule

The rates should be quoted for a single unit and also for the total quantity required by the University. The price should include the Delivery, installation, training charges, etc. at the respective Department, Pondicherry University. The prices quoted shall remain firm until the Equipment is supplied to the respective Department, Pondicherry University.

2. Quoting the Core price & Tax, Duties, Discount etc.

The taxes / duties / discounts, if applicable, are to be explicitly and separately shown in the bid.

3. Eligibility:

The firm must have the requisite domain expertise with regard to supply, installation and post-sale service of the items they are quoting. The firm should have been in existence for at least five years as on the date of this Tender and must have executed at least three orders for this kind of Equipment) during the last three years.

4. Duty Exemption

The University has been granted the benefit of exemption from the payment of the Central Excise Duty and Customs Duty by the Department of Scientific and Industrial Re-search (DSIR), India, vide their Notification No.10/97, dated 01-03-1997 and No.51/96 dated 23.07.96 respectively, in respect of

- a) Scientific and technical instruments, apparatus, equipment, Software including computers.
- b) Accessories and spare parts of goods specified in (a) above and consumables.
- c) Computer software, compact disks, CD ROM, Recording magnetic tapes, microfilms, micro-chips etc.
- d) Prototypes.

Customs duties at Indian port, if any, will be to the account of the University.

5. Technical Specifications

i. **WARRANTY:** The Equipment covered under the purchase order, when installed, shall be warranted for the quality, workmanship, trouble free operation and performance for a period of at

least 36 months (3 years) from the date of putting the system into operation at the Department of Biotechnology, Pondicherry University, or at least 42 months from the date of receipt of the last lot of the consignment.

ii. If any item covered under warranty fails, the same shall be replaced free of cost including all the applicable charges including shipping cost both ways.

iii. Complete technical specifications of the Equipment including the Operating system to be included in the bid.

iv. The necessary service support should be provided by Bidder during the agreement period.

v. The training should be provided by the supplying companies.

vi. Operating Manual should be provided in English.

vii. A recent customer list (within last five years) with contact details including email address is to be submitted with technical bids / bids as the case may be.

viii. If the Equipment is proprietary a product, a proprietary product certificate should be enclosed.

ix. The Equipment must operate at 230V / 50 Hz single phase and / or equivalent three phase electrical power.

x. The validity of the each quotation should be at least for THREE MONTHS from closing date.

xi. The offers will not be considered if received after the bid closing date and time.

xii. The offers received through telex / telefax / e-mail will not be accepted by the University under any circumstances.

xiii. The University shall not be responsible for any delay / loss or non-receipt of the tender by post / courier service.

xiv. No unsolicited correspondence shall be entertained after the submission of the offer.

xv. If an order is placed with the firm, the purchase shall be governed by an agreement as per the University rules in force at the time.

xvi. Additional terms and conditions will be incorporated in the purchase order, if needed, to safe guard the interests of the University.

xvii. Tender is not transferable.

xviii. In case of any dispute in respect of the Tender, all legal matters shall be instituted within the jurisdiction of the place where the purchaser ordinarily resides.

6. Power to reject the offer:

i. Pondicherry University reserves the right to accept / reject any offer in full or in part or accept any offer other than the lowest offer without assigning any reason thereof. Any offer containing incorrect and incomplete information shall be liable for rejection.

ii. No Agency commission will be paid to any authorized agent in India.

iii. Liquidated damages: Timely supply of the ordered items, installation, commissioning (wherever is applicable) and training etc. is the essence of the contract. In case of failure to supply within the time specified in the Purchase order, a penalty / LD of 0.5% of the total value per week or a part thereof shall be levied subject to a maximum of 7.5% in respect of items which are not supplied. The decision of Pondicherry University shall be final in this regard.

iv. Bidder(s) must be authorized business partners of Global / National service providers of the respective Equipment.

v. The Bidders must enclose authorization letter from the respective global / national service providers of the above said Equipment particularly mentioning an undertaking that in case of default by the Bidder, they (Global Service Provider) shall take over all the responsibilities of the Bidder.

vi. The Bidder should not be involved in any Bankruptcy filing for protection from it.

III. Specific Conditions for Imported Equipments

1. Payment of EMD:

The Quotation/Limited Tender must be accompanied by tender document fee and EMD as stated above, by means of separate Demand Drafts, drawn in favour of **The Finance Officer, Pondicherry University, payable at Puducherry.**

The Small Scale units are exempted from payment of EMD provided they enclose the proof of their exemption Certificate recently issued by the competent authority.

2. Payments terms:

Normally a payment 90% will be released after the installation & training. However, 100% payment will be released **if the supplier provides Bank Guarantee** towards performance Security for the 10 % of the total cost of the furnace to cover the warranty period. Bank charges in India shall be borne by the purchaser and outside India shall be borne by the contractor / supplier. The offer must be in English. The rates should be indicated both in figures and words against item specified in the given table. It is preferable that the price be quoted in US Dollars or in major foreign currencies.

Annexure – I

S.No	Equipment Name	QTY
1	Oxygraph-Oxygen Electrode system along with compatible UPS	1No