

Indian Institute of Technology, Kanpur
Department of Biological Sciences and Bio-engineering

Tender Document

Sub: ENQUIRY LETTER FOR Electroporator

Tender Enquiry Number: IITK/BSBE/JS/2022-23/01 **Enquiry Date:** 26.05.2022

Closing Date: 04.06.2022 **Opening Date:** 06.06.2022

Quotations are invited for the above-mentioned subject as per the technical specifications given below:

Technical Specification of Electroporator:

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| 1. | Compact footprint square wave electroporation system suitable for applications for gene, drug and protein delivery including: CRISPR, mammalian cells, in-vivo, ex-vivo, in-ovo tissue, ex plant and nuclear transfer. |
| 2. | System must have at least 7 inch color touch screen graphical user interface with modifiable features like time, voltage, pulse interval, pulse time, waveform, and storage capacity to store at least 1000 protocols. Should be equipped for remote operation with PC along with download/upload of protocols and pulse delivery data storage facility. |
| 3. | Upgradability: a. Instrument and should be upgradable with pulse switcher accessory to execute automatic grouped pulse, automatic polarity switching for bipolar switching protocols. b. Should be upgradable for pulse delivery monitoring system to monitor and track key electrical parameters used in electroporation applications. c. Should be upgradable for High throughput electroporation in 25- and 96-well formats. |
| 4. | Instrument should have safety stand to transfect/transform in two cuvettes simultaneously for replicate sampling in 0.1 cm, 0.2 cm and 0.4 cm gap electroporation cuvettes. Instrument must be supplied with individual sterile packed 1mm, 2mm and 4 mm gap cuvetts 10 nos each along with Pasteur pipette. |
| 5. | Safety features should include interlock switches, must be facilitated for the arc quenching feature and pulse over current protection in case of low sample resistance / arc generation for safety of instrument and operator as well. Instrument should be equipped with audio-visual alarms. |
| 6. | Safety features- instrument should have Pre-Pulse Sample Resistance Check facility to avoid short circuit and should meet CE certification and all major international regulatory standards. |
| 7. | Instrument should have universal input power supply for 100V to 240V 50/60Hz AC/, Power consumption should be less than 400 watt during active pulse delivery. |
| 8. | Electrical specifications: i. Sample resistance (load): LV Mode; Load $\geq 100\Omega$, HV Mode: Load $\geq 50\Omega$, ii. Voltage accuracy: $\sim 5\%$ iii. Square Wave Pulse Range: iv. Voltage Range: LV Mode: 15 to 500 V in 1 V steps, HV Mode: 505 to 3000 V in 5 V steps v. Pulse Length Range: a) HV Mode: 10 μ s to 600 μ s in 1 μ s steps b) LV Mode: 10 μ s to 999 μ s in 1 μ s step & 1 ms to 999 ms in 1 ms steps vi. Multiple Pulsing: 1 to 99 pulses per sample with Pulse Interval: Variable 0.1 s to 10 s vii. Internal Capacitance - LV Mode 3775 μ F & HV Mode 85 μ F viii. Charging Time- LV <7s and HV <4 s |
| 9. | Instrument must be supplied with foot switch for hands free operation and 7mm tweezertrode for in-vivo application in mice. |
| 10. | Service provider should have at least 10 years of experience to cater services for the similar product. |
| 11. | Warranty: Minimum three years from the date of Installation |

***Note: The quotations should reach the undersigned in sealed envelopes before 5 pm on 4th June 2022.**

Indentor Details:

Dr. Jonaki Sen,
Professor,
Department of Biological Sciences and Bio-engineering
Indian Institute of Technology, Kanpur-208016

Terms and Conditions:

1. Maximum discount should be offered.
2. Quotations must be valid for minimum 60 days
3. Delivery period will be 2-6 weeks after receipt of purchase order.
4. IIT Kanpur is fully exempted from payment of GST on Imported Goods against our DSIR certificate.
5. IIT Kanpur is partially exempted from payment of Customs Duty (We will provide Custom Duty Exemption Certificate, CD applicable is 5.5%).
6. Manufacturer authorization certificate from principal company is required if you are a local supplier
7. Include Proprietary Item Certificate if applicable.
8. The Institute reserves the right of accepting or rejecting any quotation or bid without assigning any reason thereof.
9. All prices should be mentioned F.O.B/CIP/CIF New Delhi or Destination at IIT Kanpur.
10. Payment Terms: 100% after supply of the materials.
11. Bidder must clearly mention their contact details with address and email ID.



Dr. Jonaki Sen