



भारतीय प्रौद्योगिकी संस्थान कानपुर
Indian Institute of Technology Kanpur

ENQUIRY NO.IITK/CHM/MKG/16-17/19

ENQUIRY DATE: 24.3.2017

CLOSING DATE: 7.4.2017

SUB: REQUEST FOR QUOTATION FOR GAS CHROMATOGRAPHY

Dear Sir/Madam,

Kindly send us a sealed quotation (technical and financial) for the following item. Quotation should be addressed to **Dr. Manas K. Ghorai, Department of chemistry, IIT Kanpur, 208016**, and must reach on or before **07th April, 2017**.

SPECIFICATIONS FOR GAS CHROMATOGRAPHY

System should be capable of supporting two inlets and three detector ports simultaneously, should have electronic pneumatic / pressure controls for all the gases.

The system should have digital display/LCD on machine for quick view of GC Parameters

System should have capability of locking/adjusting the retention time so that same Retention time can be reproduced from system to system and the method should be electronically transferred

COLUMN OVEN:

Oven temp range upto 400 Deg C or better

Number of temperature-programmed ramps: 18 ramps or better

Temperature set point resolution 0.1 Deg C.

Cool down rate : 400 Deg C to 50 Deg C in 4.5 mints or better.

Maximum programmable temp ramps rates: at least 120°C/ min

Injectors:

Split/Splitless Capillary Injector with Electronic Flow Control – 1 No

Maximum temperature: 450 Deg C

Pressure range: 0-100 psi (100 psi with increment of 0.001psi)

Electronic flow control should be configurable through software: programmed flow, programmed pressure, programmed velocity or constant flow

CARRIER GAS PNEUMATICS

Programmable Electronic control with single point control via software.

Facility to compensate for variations in ambient temperature and pressure for maximum stability.

Direct setting of split flow rates and ratios. Pneumatic program rates 0.1 to 100.0 psi/min.

The System should have Pressure set point and control precision to 0.01 psi

Detectors:

Flame Ionization Detector (FID) - 1 Nos

Auto flame out detection

Auto flame re-ignition

Max. Temp. 400 deg C or better

Detectivity 1.5pg C/sec or better

Linear dynamic range 10⁷ or better

Auto sampler & Column: (Should be quoted as Optional)

Please quote Suitable Auto sampler for 15 or more vials as optional and suitable column

To separate ketones, Alcohol, Alkane, Alkene, Amine, Nitro, Esters compounds

SOFTWARE & Accessories:

The system should be supplied with user friendly software & the entire accessory to install the system including Gas Purification Panel, Regulators & Zero Air Cylinder. Nitrogen & Hydrogen cylinder will be supplied by the Institution.

NOTE:

1. The system should be fully upgradable to MS in future
2. Price Should be Quoted F.O.R, IIT Kanpur.

Dr. Manas K. Ghorai

SL-208C (Southern Lab)

Department of Chemistry

Indian Institute of Technology Kanpur

Kanpur-208016, U.P.