

Requirement: HPLCs and Single Quadrapole LC-MS System

Quotations (separate technical bid and price bid) along with proprietary certificate and authorization letter/ certificate are invited as per the specifications given below for the following items from authorized suppliers. Please send your quotations in a sealed envelope by 29 Dec, 2014 (5.00 pm) to the undersigned in a sealed envelope

Technical specification for HPLC and Single Quadrupole LC-MS System**A. Specification of HPLCs**

1. Pump = Quaternary pump with 200ul/min to 10ml/min flow rate and a back pressure of 8500 psi or higher at 5ml/min flow. The RSD of pump should be 0.07% RSD or better. The system should handle the solution of pH range 1 to 12. (2nos)
2. Autosampler = The autosampler with 600 Bar pressure should offer injection range of 0.1ul to 100ul with 0.05% carryover as measured for Caffeine calibrant. Should offer vial capacity of 100 vials of 2ml or 15 vials of 6ml capacity. (2 nos)
3. Column oven = The column oven compartment should work from ambient minus 5 deg C to 76 deg C. The temp stability should be ± 0.15 Deg C. It should support 3 nos of 30cm long columns and should offer 2 different heating zones.
4. HPLC detector = The DAD/PDA should have wavelength of 190 to 950nm with accuracy of ± 1 nm and for better sensitivity the no of diodes should be >1000 elements. The light source should include Deuterium as well as Tungsten lamps providing sampling rate of 20 Hz. The drift should be within 0.9 mAU at 254nm.
5. C-18 column, 25 cm, 4.6mm ID, 5 μ particle size. (2 nos)
6. The tool kit, starter kits should be quoted for routine running and maintenance of HPLC system.
7. From the above HPLC, one will be used as front end to Single Quadrupole mass spec system, hence all required communication devices & cables and s/w, as required by system should be quoted by vendor.

B. Specification of Single Quadrupole Mass spec system

1. Ionization source = One no of standalone ESI source should be quoted. The flow rate for source should be 0.001 to 2ml/min. For semi-polar analytes, an additional APCI source should be offered. These standalone 2 different sources should be interchangeable easily.
2. Interface of system = Simple interface for maintaining cleanliness of ion optics and capable of handling large batches of complex samples. The ionization spray should be orthogonal (90 deg) to interface.
3. Vacuum System = A fully protected air cooled vacuum system using turbo molecular pumps and rotary pumps. Vacuum read backs and automated vent system.
4. System Calibration = Should have auto tuning and automatic calibration of system.
5. Mass Range = 2 to 2000 m/z
6. Mass Stability = 0.1 amu across 12 hours.
7. Scan Speed = 10,000 amu/sec or better.
8. Resolution = Unit Resolution
9. ESI sensitivity in SIM mode = 70:1 RMS for 1pg on column quantity of Reserpine in ESI +ve.
10. Linear Dynamic Range = 6 order of dynamic range for quantitative applications.

Notes:

1. The LC & MS should be controlled from same s/w and the two systems should be from single OEM.
2. Suitable PCs for LCMS and HPLC should be provided (2 nos)
3. A laser printer should be quoted, to be connected to the HPLCs and MS.
4. 10 KVA online UPS of 30min backup should be quoted.
5. Warranty of 1 year and CMC for second year for all items including 2 nos of HPLCs, MS.

Details Required:

1. Quote the prices for HPLCs and LC-MS separately.
2. Provide all details about HPLCs and LC-MS.
3. Prices should be quoted in Indian rupees and as much as possible should include the cost of shipping to IIT Kanpur.

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