

**INDIAN INSTITUTE OF TECHNOLOGY
DEPARTMENT OF CHEMICAL ENGINEERING**

Enquiry letter for “drop analyzer”

Enquiry no. : CHE/2017-18/IITK/PA1

April 21st, 2017

We wish to purchase a suitable device for analyzing size and number distribution of fine droplets/particles in air via laser diffraction technique.

Kindly send the quotation in sealed envelope to the undersigned by May 1st, 2017.

Thanks and regards,

Animangsu Ghatak
Department of Chemical Engineering
Indian Institute of Technology, Kanpur
UP 208016

We are looking for a suitable device for obtaining number of drops/particles in air and determining the size range within which they lie. The device should provide fast and accurate count in a compact package that can be located on a work bench without the need for vibration isolation or specialized enclosures. The interactive control software should provide easy handling of data.

Desired specification and capability of the said device:

Specifications:

S.No.		
1.	Type	Airborne
2.	Technique	Laser diffraction
3.	Light Source	Laser diode (>100,000 hours)
4.	Maximum & minimum size to be analyzed	At least 25µm, 0.25 µm
5.	Sensitivity	0.3 µm
6.	Counting Efficiency	As good as possible
7.	Coincidence Loss	<5% @ 70,000 drops or particles/liter or <5% @ 2,000,000 drops or particles/ft ³
8.	Sampling Time	tunable
9.	Sampling Mode	Cumulative & differential
10.	Interface	USB, RS232, RJ45
11.	Power source	Removable and rechargeable battery
12.	Max. Operating Time	Continuous operation > 5 hours with Lithium battery
13.	Dimensions	Compact light-weight design desired
14.	Environmental Conditions	Please define clearly
15.	Expected date of delivery	ASAP

	Documentation	
16.	The supplier to provide 2 sets of installation manual, user manual, operation and troubleshooting manuals along with their soft copies.	Supplier to provide a pre-installation guide at the time of quotation.
17.	Installation, satisfactory demonstration of performance and imparting necessary training to our users/students	It will be the responsibility of the supplier to install and demonstrate its quoted performance and impart necessary training to institute. Supplier to submit their detailed standard acceptance plan at the time of quotation.
	Warranty	2 years standard warranty at site for the complete supply. Vendor should clearly mention type of services i.e preventive/breakdown Maintenance/calibration covered under warranty with its interval and cost criteria. 2 years extended warranty is to be quoted as option.
18.	Compliance	Mandatory to comply all the specifications. This must be duly supported by technical leaflets, brochures and other related literature wherever applicable in support of the offered system. Supplier must provide also a list of customers who have purchased and installed similar system in their laboratory, their email addresses and contact numbers. The supplier to prepare a comparison table giving compliance/non-compliance against each point in the RFP, giving corresponding values / details. This is important for proper evaluation of their offers.