

All-India Institute of Medical Sciences
Ansari Nagar, New Delhi-29.
(RESEARCH SECTION)

Ref. No.19/Stores/Path/AKD/2016-17/RS

Dated: 31.08.2016

Subject: Purchase of Malvern Nanoparticle Size Analyzer, for the Department of Pathology, AIIMS, New Delhi-29 on proprietary basis- Inviting comments thereon.

The request has been received from Dr. A.K. Dinda, Deptt. of Pathology., AIIMS to purchase the subject item from M/s. Malvern Instruments Limited, UK on proprietary basis. The proposal submitted by M/s Aimil Ltd., Instrumentation & Technologies (mfg. by M/s. Malvern Instruments Limited), and PAC certifications are attached.

The above documents are being uploaded for open information to submit objections, comments, if any, from any manufacturer regarding proprietary nature of the equipment/item within issue of 15 days giving reference **No. 19/Stores/Path/AKD/2016-17/RS**. The comments should be received by office of Stores Officer (RS), Research Section at AIIMS on or before 20/09/2016 upto 12:00 p.m., failing which it will be presumed that any other vendor is having no comment to offer and case will be decided on merits.

STORES OFFICER (RS)

Encl: Related documents enclosed.

- 1. PAC Certificate enclosed.**
- 2. Specification of equipment.**



Malvern Instruments Limited

Groewood Road, Malvern
Worcestershire, WR14 1XZ UK
Telephone: +44 (0) 1684 892456
Facsimile: +44 (0) 1684 892789

www.malvern.com

12th January 2016

To Whom It May Concern

We hereby confirm that the Zetasizer Nano ZS90 for the automation of size, zeta potential or intensity measurements as a function of pH, conductivity or additive concentration is a proprietary item of Malvern Instruments Limited UK.

The proprietary items/technology containing the below listing are Patents manufactured by Malvern Instruments only.

Patents granted –

High and Low Frequency Electrophoreses (M3) an apparatus able to determine the zeta potential distribution of a particle dispersion contained in a cell/cuvette.

- EP1154266
- US7217350
- JP04727064

Surface Potential Determination in a Dip Cell, an apparatus able to determine the zeta potential of a sample surface through the analysis of scattered light

- W02012172330

On behalf of Malvern Instruments Ltd.


John Martin
Customer Services Director


Prof. A.K. DINDA
आचार्य / Professor
विद्युत विभाग/Dept. of Pathology
अखिल भारतीय आयुर्विज्ञान संस्थान/AIIMS
नई दिल्ली / New Delhi-110029

Innovative solutions in material characterization

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NOTARY PUBLIC
DELHI (INDIA)

Company registered in England No. 1020652 Registered Office as above

12 JUL 2016



Specifications for Malvern Zetasizer Nano ZS 90

General

1. Temperature control as standard 0°C to 90°C Optional 110 deg C.
2. The system must use an avalanche photodiode detector (APD) as standard
3. Digital correlator minimum 25ns with up to 4000 channels

Size measurements

4. Maximum size range 0.3nm - 5.0 microns (diameter)
5. Minimum sample volume 20µL
6. Two scattering angles for size measurement (12.8° and 90°) - Zetasizer Nano ZS90 only

Zeta potential measurements

7. Zeta potential range > +/- 500mV
8. Mobility range > +/-20µm.cm/V.s
9. Size of particles measurable 3.8nm to 100 microns.
10. The use of Phase Analysis Light Scattering (PALS) as standard
11. A disposable capillary cell including disposable electrodes must be available
12. Autotitrator for pH, conductivity and additive titrations

Molecular weight measurements

13. Absolute molecular weight 9,800Da to 2x10⁷
14. Estimated molecular weight 342Da to 2x10⁷

Flow measurements

15. SEC detector mode option including analogue input from two detectors, and trigger input
16. Switch between batch and flow measurements must take less than 1 minute.

Software

17. The software must be compatible with Windows XP, VISTA and Windows 7 operating systems.
 18. Data export must be available to word processing packages or spreadsheets
 19. Access to all measured data including correlation functions, fitted data points, residuals and all experimental parameters must be available and stored for subsequent examination and recalculation.
 20. The calculation of the cumulants mean defined in ISO13321 must be used
 21. The option of a 21 CFR part 11 operating mode must be available
- 1.1 09.0



Dr. A. K. DINDA,
M.D.; Ph.D.
Professor

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Store Officer,
Research Section,
A.I.I.M.S, New Delhi - 29.

Date: 28.07.2016

Subject: Purchase of Malvern Nanoparticle Size Analyzer on Proprietary
and its Justification

Dear Sir,

In reference to the project number I - 895, I hereby request you to purchase the Malvern Nanoparticle Size Analyzer on proprietary basis due to the following justifications as mentioned:

1. Surface potential determination in a Dip Cell (Patent No. WO 2012172330 A1)
2. High and Low Frequency Electrophoreses (M3), an apparatus able to determine the zeta potential distribution of a particle dispersion contained in a cell/cuvette (Patent No. EP1154266, US7217350, JP04727064)

Also, the said equipment is considered as standard for initial characterization of the nanoparticles synthesized in the laboratories across the globe and has been cited in more than 1000s of publications.

Keeping above points in mind, I request you to kindly permit us to purchase this equipment under proprietary head.

Kindly do the needful at the earliest.

Thanking you,
Sincerely,

Dr. A.K. Dinda

प्रो. ए. के. डिण्डा/Prof. A. K. DINDA
आचार्य / Professor
विकृति विभाग/Dept. of Pathology
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