

P.O. Box 230 | 6700 AE Wageningen | The Netherlands

Dear colleague,

Nanoparticles are increasingly used and a vast number of nanotechnological products including consumer products, are entering the market. To determine whether a product contains a nanomaterial, particle size and number concentration need to be measured. The EU project ACEnano innovates and optimises analytical techniques to detect and characterise nanoparticles. Task 5.3 in this project foresees the development of a proficiency testing scheme for nanomaterial analysis to assure comparable performance of laboratories. Participation in proficiency tests is essential to improve or maintain the quality of a laboratory.

RIKILT, a partner in ACEnano, is experienced in the organisation of proficiency tests and was already involved in the organisation of three interlaboratory studies (ILS) on nanomaterials^{1,2,3}. We now invite you to take part in the proficiency tests that will start February 2019. The samples for this test will be a gold nanoparticle in an aqueous suspension and will be provided by ACEnano. You are asked to determine the particle size using the technique of field flow fractionation (FFF), in particular Asymmetrical Flow Field-Flow Fractionation (AF4).

Please forward this invitation to other laboratories in your country or other contacts that could be interested in participating.

¹ TPJ Linsinger, RJB Peters, S Weigel. *International interlaboratory study for sizing and quantification of Ag nanoparticles in food simulants by single-particle ICPMS*. Anal. Bioanal. Chem., 2014, 406:3835-3843.

² RJB Peters, Z Herrera Rivera, H Bouwmeester, S Weigel, HJP Marvin. *Advanced Analytical Techniques for the Measurement of Nanomaterials in Complex Samples: A Comparison*. Qual. Ass. Safe. Crop. Food., 2014, 6:281-290.

³ S Weigel, R Peters, K Loeschner, R Grombe, T Linsinger. *Results of an interlaboratory method performance study for the size determination and quantification of silver nanoparticles in chicken meat by single-particle-inductively coupled plasma-mass spectrometry (sp-ICP-MS)*. Anal. Bioanal. Chem., 2017, 409:4839-4848.

RIKILT

DATE
December 19, 2018

SUBJECT
Proficiency test for
nanoparticles in water with FFF

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RIKILT, part of Wageningen University & Research, carries out research into the safety and reliability of food and feed. RIKILT is ISO 17025 and ISO 17043 accredited (the accredited tests are described on www.rva.nl (no. L014 and R013)).

The following issues are important for participation in the proficiency test:

1. Samples

- One aqueous sample will be supplied for the analysis of gold nanoparticles with a particle size in the range of 20 – 100 nm.
- A set of gold nanoparticles to prepare a particle size calibration curve.
- An amount of surfactant NovaChem 100.
- The materials will be sent by February 2019. The distribution of the samples will be announced by e-mail.
- The participant should arrange the necessary import permits for the sample materials.

2. Quantitative analysis

- The results have to be reported within 6 weeks after shipment of the samples.

3. Report

- A report of the proficiency test will be dispatched in June/July 2019.
- Results of the proficiency test will be presented anonymously.

4. Additional information

- RIKILT is allowed to use the anonymous results of the proficiency test in presentations, seminars and publications.
- RIKILT will never inform third parties (e.g. accreditation bodies) on specific laboratory results without informing the laboratory first.

5. Costs

- There are no costs for participation.

If you would like to participate, please fill out the participation form (preferably digitally) and send it to me before January 30 2019 by e-mail (pt.rikilt@wur.nl).

Hoping to welcome you for this proficiency test,

Yours sincerely,



Ingrid Elbers
Ruud Peters
Proficiency tests
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