

CIPAC MT STATUS REPORT

25.07.2025

MT 0203 Density of Solids and Liquids with Automated Systems

Allocated to DAPF

CIPAC methods published in:

CIPAC 67th meeting, June 2023 Braunschweig

Density of solids and liquids with automated systems by Mr Jonas Treutwein (5356)

Mr Treutwein reported about the reasoning behind the addition of a new procedure for the determination of the density of solids and liquids. The current methods (MT 3, MT 186, A3 and OECD 109) do not include the current practice of the majority of laboratories of applying fully automated gas pycnometers for solids or oscillating density meters for liquids. Also MT 3 is already very complicated therefore a new method incorporating the new techniques is more efficient than rewriting MT 3. It was also stated by Mr Treutwein that an interlaboratory proficiency test would not be required as the equipment is fully automated and therefore can only lead to erroneous results if operated in a not correct way.

Mr Treutwein therefore recommends that the new method 'Density of Solids and Liquids with automated systems' should be adopted as provisional CIPAC method.

The following comments were received from the meeting:

- Mr Wolfram asked whether the proposed method is related to a certain instrument brand. This was not the case, no CIPAC endorsement will be granted.
- Mr Di Loreto asked why a collaborative trial is not needed? Mr Treutwein answered that a collaborative trial is not needed because you have just to use the instrument according to its instructions.
- Mr Benke remarked that traditional methods, e.g. by using a pycnometer, is more accurate. Mr Treutwein answered that the accuracy of the automated systems is sufficient and that the current methods stay in place.
- Mr Hänel asked why an automated method should be registered as a CIPAC method. Mr Treutwein answered that it necessary because of requests from some authorization bodies. Nevertheless, the question remains why a fully automated method should be a CIPAC method.
- Ms Tessier asked whether the equipment is widely available. Mr Treutwein answered that they were.

Closed Meeting:

Mr Hänel asked the meeting whether the handling of a fully automated system should be included in a CIPAC method. It could be judged as an endorsement of a certain brand of equipment. Mrs Nováková suggested to put the method on the website only, but without CIPAC 'recognition'. Mr Pigeon suggested to incorporate the automated system in the current MT method. Mr Bura and Mr De Rijk stressed the importance of performing an interlaboratory test as correct calibration of the system was vital for obtaining correct results and because very viscous materials require a dilution step in order to obtain correct results.

It was decided that DAPF would be contacted by Mr Hänel and that no promotion could be granted. The request will return on the agenda of the 68th CIPAC annual meeting in 2024.

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CIPAC 68th meeting, June 2024 Wageningen

DAPF Statement according to the proposed new MT-method “Density of Solids and Liquids with Automated Systems” introduced at the 67th annual CIPAC meeting (5398)

A new method for the determination of the densities of solids and liquids with fully automated systems was introduced by DAPF at the 67th annual CIPAC meeting in Braunschweig. According to the minutes of the technical meeting doubts arose within CIPAC whether the handling of a fully automated system should be included in a CIPAC method since it could be judged as an endorsement of certain brand of equipment. CIPAC members also stressed the importance of performing an interlaboratory test as correct calibration of the system was vital for obtaining correct results.

DAPF prepared a statement document to answer the two main questions of the last year meeting: why should a fully automated method be registered as a CIPAC method and why is no collaborative trial needed.

DAPF is well aware, that the proposed new method is very simple and most of the described procedure is part of a fully automated system. Nevertheless, since some authorities insist on using CIPAC MT methods for data generation and the density is a data requirement for all liquid and in some parts of the world also for solid PPPÅLs, it seems adequate to describe the use of automated gas comparison pycnometers and oscillating density meters in an independent CIPAC MT method.

This agenda point was mistakenly put under agenda point 7 and no discussions were held. It was proposed to circulate the document and the decision will be taken based on the comments.

CIPAC 69th meeting, June 2025 Galway

MT 203 Density of solids and liquids with automated systems

Closed Meeting:

The provisional CIPAC MT 203 Density of solids and liquids with automated systems was accepted as **full** CIPAC method.