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26.10.2026, 15:31

Dissemination of the SI mass unit from the National Prototype of Kilogram using the vacuum mass comparator after the mass unit redefinition

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[reference mass standard vacuum mass comparator](#)

Abstract

This article discussed one of the method for the mass dissemination from the national mass standard using the high vacuum mass comparator after the redefinition of the mass unit which was scheduled for 2018. The mass unit redefinition based on the Avogadro project and the Watt balance project requires to develop a new coherent methods for mass dissemination from the national prototypes to the usable and commercial reference mass standards. The new methods should guarantee higher accuracy then the methods which are currently applying. The right direction seems to be the one chosen by the leading NMI's in Europe (like PTB & CMI) consisting in the mass unit dissemination in the vacuum and other gases than air conditions.

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ISSN 2300-8806

Year 2015

Volume 1-2

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