
**Workplace air — Determination of metals
and metalloids in airborne particulate
matter by inductively coupled plasma
mass spectrometry**

*Air des lieux de travail — Détermination des métaux et métalloïdes
dans les particules en suspension dans l'air par spectrométrie de
masse avec plasma à couplage inductif*



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2010

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction.....	v
1 Scope	1
2 Normative references	2
3 Terms and definitions	2
3.1 General definitions	2
3.2 Analytical definitions	3
3.3 ICP-MS definitions	6
3.4 Statistical definitions	8
4 Principle.....	10
5 Requirements.....	10
6 Reagents.....	10
7 Laboratory apparatus.....	13
8 Procedure	13
8.1 Preparation of sample solutions.....	13
8.2 Method development.....	14
8.3 Instrument performance checks	18
8.4 Routine analysis	18
8.5 Estimation of detection and quantification limits	20
8.6 Quality control	20
8.7 Measurement uncertainty	21
9 Expression of results	22
10 Method performance	22
10.1 Method detection limits and quantification limits.....	22
10.2 Upper limits of the analytical range.....	22
10.3 Bias and precision.....	23
10.4 Measurement uncertainty	24
11 Test report.....	24
11.1 Test records	24
11.2 Laboratory report	25
Annex A (informative) ICP-MS principles and interferences	26
Annex B (informative) Guidance on maintenance of ICP-MS instrumentation	29
Annex C (informative) Recalculation of metal and metalloid in air concentrations to reference conditions.....	31
Bibliography.....	32