
**Pore size distribution and porosity of
solid materials by mercury porosimetry
and gas adsorption —**

**Part 3:
Analysis of micropores by gas adsorption**

*Distribution des dimensions des pores et porosité des matériaux solides
par porosimétrie au mercure et par adsorption de gaz —*

Partie 3: Analyse des micropores par adsorption de gaz



Reference number
ISO 15901-3:2007(E)

© ISO 2007

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 2007

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	1
3 Terms and definitions.....	1
4 Symbols	3
5 Principles.....	5
5.1 General.....	5
5.2 Methods of measurement	6
6 Procedure of measurements	6
6.1 Sampling.....	6
6.2 Sample pre-treatment	6
6.3 Measurement.....	7
7 Verification of apparatus performance.....	7
8 Calibration	7
9 Evaluation of the micropore volume.....	7
9.1 General.....	7
9.2 Determination of the micropore volume according to Dubinin and Radushkevich	9
9.3 Micropore analysis by comparison of isotherms	10
9.4 Determination of micropore size distribution by the Horvath-Kawazoe (HK) and the Saito-Foley (SF) method.....	14
9.5 Determination of micropore size distribution by non-local density functional theory	15
10 Test report	19
Annex A (informative) Horvath-Kawazoe and Saito-Foley methods.....	20
Annex B (informative) NLDFT method	23
Bibliography	26