

This is a preview of "ISO 334:2013". [Click here to purchase the full version from the ANSI store.](#)

Third edition
2013-10-15

Solid mineral fuels — Determination of total sulfur — Eschka method

*Combustibles minéraux solides — Dosage du soufre total —
Méthode Eschka*



Reference number
ISO 334:2013(E)

© ISO 2013

This is a preview of "ISO 334:2013". Click [here](#) to purchase the full version from the ANSI store.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2013

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested 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

This is a preview of "ISO 334:2013". Click here to purchase the full version from the ANSI store.

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Principle	1
4 Reagents	1
4.1 Eschka mixture.....	1
4.2 Hydrochloric acid.....	1
4.3 Potassium sulfate solution.....	2
4.4 Barium chloride, approximately 85 g/l solution.....	2
4.5 Methyl red indicator solution.....	2
4.6 Ammonia.....	2
4.7 Silver nitrate, 17 g/l solution.....	2
5 Apparatus	2
5.1 Analytical balance.....	2
5.2 Graduated glassware.....	2
5.3 Electrically heated muffle furnace.....	2
5.4 Crucible.....	2
5.5 Flat plate.....	2
5.6 Gooch crucible.....	2
5.7 Air oven.....	2
6 Preparation of test sample	3
7 Procedure	3
7.1 Test portion.....	3
7.2 Charging the crucible.....	3
7.3 Ignition.....	4
7.4 Recovering the residue.....	4
7.5 Extraction.....	4
7.6 Precipitation of barium sulfate.....	4
7.7 Blank testing.....	5
8 Expression of results	5
9 Precision	6
9.1 Repeatability limit.....	6
9.2 Reproducibility limit.....	6
10 Test report	6
Annex A (informative) Derivation of factors used in the calculation in Clause 8	7

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. www.iso.org/patents

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

The committee responsible for this document is ISO/TC 27, *Solid mineral fuels*, Subcommittee SC 5, *Methods of analysis*.

This third edition cancels and replaces the second edition (ISO 334:1992), of which it constitutes a minor revision.

This is a preview of "ISO 334:2013". [Click here to purchase the full version from the ANSI store.](#)

Introduction

An alternative reference method to that specified in this International Standard is given in ISO 351:1996.

Instrumental methods for a more rapid determination of total sulfur are now available. If such a method is to be used, it is important to demonstrate that the method is free from bias, when compared to this reference method, and will give levels of repeatability and reproducibility which are the same as, or better than, those quoted for the reference method (see [Clause 9](#)).