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## Coal — Determination of extractable metals in dilute hydrochloric acid

*Combustibles minéraux solides — Détermination des métaux extractibles dans l'acide chlorhydrique dilué*

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## Foreword

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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 document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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This document was prepared by Technical Committee ISO/TC 27, *Coal and coke*, Subcommittee SC 5, *Methods of analysis*.

This third edition cancels and replaces the second edition (ISO 1952:2008), which has been technically revised.

The main changes are as follows:

- the title and scope has been modified to specifically refer to coal;
- the normative references have been updated;
- the mandatory terms and definitions clause ([Clause 3](#)) has been added; subsequent clauses have been renumbered;
- [Formula \(1\)](#) has been modified;
- the test report has been modified.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

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## Introduction

Sodium, potassium, calcium, iron and magnesium are commonly present in coal. They can contribute significantly to coal-utilization problems, such as boiler-tube fouling and ash disposal; they also affect product quality and gaseous emissions from combustion processes.

Research indicates that the amounts of alkaline and earth-alkaline metals extractable with dilute hydrochloric acid are more closely related to the fouling/slagging properties of coal than are the total amounts of the metals.

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