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## **Workplace atmospheres — Determination of inorganic acids by ion chromatography —**

### **Part 1: Non-volatile acids (sulfuric acid and phosphoric acid)**

*Air des lieux de travail — Détermination des acides inorganiques par  
chromatographie ionique —*

*Partie 1: Acides non volatils (acide sulfurique et acide phosphorique)*



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## 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 21438-1 was prepared by Technical Committee ISO/TC 146, *Air quality*, Subcommittee SC 2, *Workplace atmospheres*.

ISO 21438 consists of the following parts, under the general title *Workplace atmospheres — Determination of inorganic acids by ion chromatography*:

— *Part 1: Non-volatile acids (sulfuric acid and phosphoric acid)*

The following parts are under preparation:

— *Part 2: Volatile acids, except hydrofluoric acid (hydrochloric acid, hydrobromic acid and nitric acid)*

— *Part 3: Hydrofluoric acid and particulate fluorides*

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## Introduction

The health of workers in many industries is at risk through exposure by inhalation of particulate acids like sulfuric acid or phosphoric acid compounds. Industrial hygienists and other public health professionals need to determine the effectiveness of measures taken to control workers' exposure, and this is generally achieved by making workplace air measurements. This part of ISO 21438 has been published in order to make available a method for making valid exposure measurements for particulate acids in use in industry. It will be of benefit to: agencies concerned with health and safety at work; industrial hygienists and other public health professionals; analytical laboratories; and industrial users of sulfuric and phosphoric acids, and their workers.

It has been assumed in the drafting of ISO 21438 (all parts) that the execution of its provisions and the interpretation of the results obtained are entrusted to appropriately qualified and experienced people.