

ISO 15202-2:2020-05 (E)

Workplace air - Determination of metals and metalloids in airborne particulate matter by inductively coupled plasma atomic emission spectrometry - Part 2: Sample preparation

Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	2
3 Terms and definitions	2
4 Principle	3
5 Requirements	3
6 Reactions	3
7 Reagents	3
8 Laboratory apparatus	4
9 Procedure	4
9.1 Soluble metal and metalloid compounds	4
9.2 Total metals and metalloids and their compounds	5
9.3 Mixed exposure	5
10 Special cases	5
10.1 Action to be taken if there is doubt about the effectiveness of the selected sample dissolution method	5
10.2 Action to be taken when particles have become dislodged from the filter during transportation	6
10.3 Action to be taken regarding sampler wall deposits	6
11 Laboratory records	6
Annex A (informative) Safety precautions to be observed when using hydrofluoric and perchloric acids	7
Annex B (normative) Sample dissolution method for soluble metal and metalloid compounds	8
Annex C (normative) Sample dissolution using nitric acid and hydrochloric acid on a hotplate	14
Annex D (normative) Sample dissolution using hydrofluoric and nitric acids and ultrasonic agitation	18
Annex E (normative) Sample dissolution using sulfuric acid and hydrogen peroxide on a hotplate	21
Annex F (normative) Sample dissolution using nitric acid and perchloric acid on a hotplate	25
Annex G (normative) Sample dissolution in a closed vessel microwave dissolution system	29
Annex H (normative) Sample dissolution at 95 °C using a hot block	35
Annex I (normative) Action to be taken when there is visible, undissolved, particulate material after sample dissolution	38
Annex J (informative) Sampler wall deposits	44
Bibliography	47