

# ISO 17294-2:2023-10 (E)

## Water quality - Application of inductively coupled plasma mass spectrometry (ICP-MS) - Part 2: Determination of selected elements including uranium isotopes

---

<b>Contents</b>	<b>Page</b>
Foreword.....	iv
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>2</b>
<b>3 Terms, definitions and symbols</b> .....	<b>3</b>
3.1 Terms and definitions.....	3
3.2 Symbols.....	6
<b>4 Principle</b> .....	<b>7</b>
<b>5 Interferences</b> .....	<b>7</b>
5.1 General.....	7
5.2 Spectral interferences.....	9
5.2.1 General.....	9
5.2.2 Isobaric elemental.....	9
5.2.3 Polyatomic interferences.....	9
5.3 Non-spectral interferences.....	10
<b>6 Reagents</b> .....	<b>11</b>
<b>7 Apparatus</b> .....	<b>14</b>
<b>8 Sampling</b> .....	<b>15</b>
<b>9 Sample pre-treatment</b> .....	<b>16</b>
9.1 Determination of the mass concentration of dissolved elements without digestion.....	16
9.2 Determination of the total mass concentration after digestion.....	16
<b>10 Procedure</b> .....	<b>17</b>
10.1 General.....	17
10.2 Calibration of the ICP-MS system.....	17
10.3 Measurement of the matrix solution for evaluation of the correction factors.....	17
10.4 Measurement of the samples.....	18
<b>11 Calculation</b> .....	<b>18</b>
<b>12 Test report</b> .....	<b>18</b>
<b>Annex A (normative) Determination of the mass concentration of uranium isotopes</b> .....	<b>20</b>
<b>Annex B (informative) Description of the matrices of the samples used for the interlaboratory trial</b> .....	<b>29</b>
<b>Annex C (informative) Performance data</b> .....	<b>32</b>
<b>Bibliography</b> .....	<b>35</b>