

ISO 13165-2:2014-04 (E)

Water quality - Radium-226 - Part 2: Test method using emanometry

| Contents | | Page |
|--|---|-------------|
| Foreword | | iv |
| Introduction | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms, definitions and symbols | 1 |
| 3.1 | Terms and definitions | 1 |
| 3.2 | Symbols | 2 |
| 4 | Principle | 2 |
| 5 | Reagents and equipment | 3 |
| 5.1 | Reagents | 3 |
| 5.2 | Equipment | 3 |
| 6 | Sampling and storage | 4 |
| 6.1 | Sampling | 4 |
| 6.2 | Sample storage | 4 |
| 7 | Procedures | 4 |
| 7.1 | Sample preparation | 4 |
| 7.2 | Measurement conditions | 5 |
| 7.3 | Counting procedure | 5 |
| 8 | Quality assurance and quality control programme | 5 |
| 8.1 | General | 5 |
| 8.2 | Influence parameters | 5 |
| 8.3 | Instrument verification and calibration | 6 |
| 8.4 | Method verification | 6 |
| 8.5 | Demonstration of analyst capability | 6 |
| 9 | Expression of results | 6 |
| 9.1 | Activity concentration of water-soluble ²²⁶Ra | 6 |
| 9.2 | Standard uncertainty of activity concentration | 7 |
| 9.3 | Limits of the confidence interval | 8 |
| 9.4 | Example | 8 |
| 10 | Test report | 8 |
| Annex A (informative) Decay chains of uranium-238 and thorium-232 | | 10 |
| Annex B (informative) Bubbler | | 12 |
| Annex C (informative) Glass scintillation cell | | 14 |
| Bibliography | | 15 |