

ISO 157:2025-05 (E)

Coal - Determination of forms of sulfur

| Contents | | Page |
|--------------------|--|-------------|
| Foreword | | v |
| Introduction | | vi |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 1 |
| 4 | Principle | 1 |
| 5 | Preparation of test sample | 1 |
| 6 | Separation of sulfate and pyritic sulfur | 3 |
| 6.1 | Principle | 3 |
| 6.2 | Reagents | 3 |
| 6.3 | Apparatus | 3 |
| 6.4 | Procedure | 4 |
| 6.4.1 | Test portion | 4 |
| 6.4.2 | Extraction | 4 |
| 7 | Determination of sulfate sulfur | 5 |
| 7.1 | Principle | 5 |
| 7.2 | Reagents | 5 |
| 7.3 | Apparatus | 5 |
| 7.4 | Procedure | 6 |
| 7.5 | Blank test | 7 |
| 7.6 | Expression of results | 7 |
| 7.7 | Precision | 7 |
| 7.7.1 | Repeatability limit | 7 |
| 7.7.2 | Reproducibility limit | 7 |
| 8 | Determination of pyritic sulfur | 7 |
| 8.1 | Principle | 7 |
| 8.2 | Reagents | 8 |
| 8.2.1 | Titrimetric, colorimetric and atomic absorption spectrometric finishes | 8 |
| 8.2.2 | Titrimetric finish only | 8 |
| 8.2.3 | Colorimetric and atomic absorption spectrometric finishes | 9 |
| 8.2.4 | Colorimetric finish only | 9 |
| 8.2.5 | Atomic absorption spectrometric finish only | 9 |
| 8.3 | Apparatus | 9 |
| 8.4 | Procedure | 9 |
| 8.4.1 | Preparation of test solution | 9 |
| 8.4.2 | Titrimetric finish | 10 |
| 8.4.3 | Colorimetric finish | 10 |
| 8.4.4 | Atomic absorption spectrometric finish | 11 |
| 8.5 | Blank test | 12 |
| 8.6 | Expression of results | 12 |
| 8.6.1 | Titrimetric finish | 12 |
| 8.6.2 | Colorimetric finish | 13 |
| 8.6.3 | Atomic absorption spectrometric finish | 13 |

| | | |
|-----------------------|--|----|
| 8.7 | Precision | 14 |
| 8.7.1 | Repeatability limit | 14 |
| 8.7.2 | Reproducibility limit | 14 |
| 9 | Determination of organic sulfur | 14 |
| 9.1 | Principle | 14 |
| 9.2 | Calculation | 14 |
| 10 | Calculation to other bases | 14 |
| 11 | Test report | 14 |
| Annex A (informative) | Derivation of factors used in the calculations | 16 |