

ISO 18417:2017-03 (E)

Iodine charcoal sorbents for nuclear facilities - Method for defining sorption capacity index

| Contents | Page |
|--|------|
| Foreword | iv |
| Introduction | v |
| 1 Scope | 1 |
| 2 Normative references | 1 |
| 3 Terms and definitions | 1 |
| 4 Principles of the method | 2 |
| 5 Preparation of the test | 4 |
| 5.1 General | 4 |
| 5.2 Removal of air impurity and humidity into the installation | 4 |
| 5.3 Radioactive methyl iodide used for sorbent testing | 5 |
| 5.4 Preparation of sorbent samples | 5 |
| 5.5 Measuring devices | 6 |
| 5.6 Conditions for achieving equilibrium during the test | 6 |
| 5.7 Safe conditions for workers and members of the public | 6 |
| 6 Test conditions | 7 |
| 7 Sorbent testing | 7 |
| 8 Test performance | 9 |
| 9 Determination of the sorption capacity index | 10 |
| 9.1 Sorption capacity index determination | 10 |
| 9.2 Calculating sorption capacity index | 11 |
| 9.3 Uncertainties of measurements | 12 |
| 10 Documenting test results | 13 |
| Annex A (normative) Format of test report (for the customer) | 14 |
| Annex B (normative) Format of internal test report | 15 |
| Annex C (normative) Measurements results | 16 |
| Annex D (informative) Example of expected results for sorption capacity index | 17 |
| Bibliography | 19 |