

# ISO 11733:2004-08 (E)

## Water quality - Determination of the elimination and biodegradability of organic compounds in an aqueous medium - Activated sludge simulation test

---

| <b>Contents</b>                                                                                                                             |                                                       | <b>Page</b> |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------|
| Foreword .....                                                                                                                              |                                                       | iv          |
| <b>1</b>                                                                                                                                    | <b>Scope .....</b>                                    | <b>1</b>    |
| <b>2</b>                                                                                                                                    | <b>Normative references .....</b>                     | <b>1</b>    |
| <b>3</b>                                                                                                                                    | <b>Terms and definitions .....</b>                    | <b>2</b>    |
| <b>4</b>                                                                                                                                    | <b>Principle .....</b>                                | <b>3</b>    |
| <b>5</b>                                                                                                                                    | <b>Test environment .....</b>                         | <b>4</b>    |
| <b>6</b>                                                                                                                                    | <b>Reagents .....</b>                                 | <b>4</b>    |
| <b>7</b>                                                                                                                                    | <b>Apparatus .....</b>                                | <b>7</b>    |
| <b>8</b>                                                                                                                                    | <b>Procedure .....</b>                                | <b>8</b>    |
| <b>8.1</b>                                                                                                                                  | <b>General .....</b>                                  | <b>8</b>    |
| <b>8.2</b>                                                                                                                                  | <b>Preparation of the inoculum .....</b>              | <b>8</b>    |
| <b>8.3</b>                                                                                                                                  | <b>Performance of the test .....</b>                  | <b>8</b>    |
| <b>9</b>                                                                                                                                    | <b>Calculation and expression of results .....</b>    | <b>11</b>   |
| <b>9.1</b>                                                                                                                                  | <b>Calculation of the degree of elimination .....</b> | <b>11</b>   |
| <b>9.2</b>                                                                                                                                  | <b>Expression of results .....</b>                    | <b>12</b>   |
| <b>9.3</b>                                                                                                                                  | <b>Indication of biodegradation .....</b>             | <b>12</b>   |
| <b>9.4</b>                                                                                                                                  | <b>Biodegradation of the organic medium .....</b>     | <b>12</b>   |
| <b>10</b>                                                                                                                                   | <b>Validity of the test .....</b>                     | <b>12</b>   |
| <b>11</b>                                                                                                                                   | <b>Test report .....</b>                              | <b>13</b>   |
| <b>Annex A (informative) Modification of the activated sludge simulation test for nitrifying-denitrifying sewage treatment plants .....</b> |                                                       | <b>14</b>   |
| <b>Annex B (informative) Coupling of the test units (optional) .....</b>                                                                    |                                                       | <b>18</b>   |
| <b>Annex C (informative) Test systems .....</b>                                                                                             |                                                       | <b>19</b>   |
| <b>Annex D (informative) Effects of sludge retention time on effluent concentration .....</b>                                               |                                                       | <b>22</b>   |
| <b>Annex E (informative) Example of an elimination/degradation curve .....</b>                                                              |                                                       | <b>25</b>   |
| <b>Bibliography .....</b>                                                                                                                   |                                                       | <b>26</b>   |