

# ISO 14502-2:2005-03 (E)

## Determination of substances characteristic of green and black tea - Part 2: Content of catechins in green tea - Method using high-performance liquid chromatography

---

<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>Principle .....</b>	<b>1</b>
<b>4</b>	<b>Reagents .....</b>	<b>1</b>
<b>5</b>	<b>Apparatus .....</b>	<b>5</b>
<b>6</b>	<b>Sampling .....</b>	<b>5</b>
<b>7</b>	<b>Preparation of test samples .....</b>	<b>6</b>
<b>8</b>	<b>Procedure .....</b>	<b>6</b>
<b>8.1</b>	<b>General .....</b>	<b>6</b>
<b>8.2</b>	<b>Determination of dry matter content .....</b>	<b>6</b>
<b>8.3</b>	<b>Test portion .....</b>	<b>6</b>
<b>8.4</b>	<b>Extraction of polyphenols .....</b>	<b>6</b>
<b>8.5</b>	<b>Dilution .....</b>	<b>7</b>
<b>8.6</b>	<b>Determination .....</b>	<b>7</b>
<b>9</b>	<b>Calculation .....</b>	<b>8</b>
<b>9.1</b>	<b>General .....</b>	<b>8</b>
<b>9.2</b>	<b>Quantitation using catechin standards .....</b>	<b>8</b>
<b>9.3</b>	<b>Quantitation using a caffeine standard and catechin Relative Response Factors (RRFs) ....</b>	<b>9</b>
<b>10</b>	<b>Precision .....</b>	<b>10</b>
<b>10.1</b>	<b>Interlaboratory test .....</b>	<b>10</b>
<b>10.2</b>	<b>Repeatability .....</b>	<b>10</b>
<b>10.3</b>	<b>Reproducibility .....</b>	<b>10</b>
<b>11</b>	<b>Test report .....</b>	<b>10</b>
<b>Annex A (informative) Results of interlaboratory tests .....</b>		<b>11</b>
<b>Annex B (informative) Assessment of purity of standards .....</b>		<b>13</b>
<b>Annex C (informative) Typical HPLC chromatograms .....</b>		<b>14</b>
<b>Annex D (informative) The effect of ferric ions on catechin RRFs .....</b>		<b>18</b>
<b>Annex E (informative) Quantitative comparison -- Use of catechin standards or a caffeine standard in conjunction with catechin RRFs .....</b>		<b>21</b>
<b>Bibliography .....</b>		<b>23</b>