

**[CBM 47] Uncertainty estimation for the determination of uranium by titrimetric method Davies & Gray**

**Autores:** *Luciana Vieira de Santana; Marycel Elena Barboza Cotrim; Daphne de Souza Said; João Cristiano Ulrich; Maria Aparecida Faustino Pires.*

**Palavras-Chave:** Uranium; Davies & Gray; Titrimetric.

**Resumo:** The aim of this work is to reporting a complete estimation of the uncertainty in uranium determination by the modified potentiometric titration method of Davies & Gray. The uncertainty of the measurement is estimated according to the parameters established in the Eurachem Guide to Quantifying Uncertainty in Analytical Measurement. The accuracy of method was evaluated using a series of 9 measurements of CRM 112A: Uranium oxide (U<sub>3</sub>O<sub>8</sub>). The most relevant sources of uncertainty result from those associated with the sample mass used and the analyst's accuracy. In conclusion, the adopted Davies & Gray method fully meets the expected objectives.