

3.3.08

AOAC Official Method 936.02

Iron in Plants

Titrimetric Method

First Action 1936

Final Action

Take appropriate aliquot of *Solution I*, **920.08** (*see* 3.1.15), or of solution prepared as in **937.03B** (*see* 3.3.07), and oxidize Fe by adding solution of KMnO_4 (1 + 1000) dropwise until very faint permanganate color persists. Add 5 mL 10% NH_4SCN and titrate with dilute TiCl_3 solution until red color disappears. (To prepare appropriate TiCl_3 solution, boil 5–10 mL 20% TiCl_3 with 50 mL HCl few minutes, cool, and dilute to 1 L. Standardize against standard Fe solution, keep in dark in well-filled container, and restandardize each time it is used, or every few hours when many determinations are being made. Discard when decomposition is indicated by loss of color and increased titer against standard.)

References: *JAOAC* **19**, 359(1936); **27**, 526(1944).

CAS-7439-89-6 (iron)