SD-Fig. 1 The effect of AIII concentration on UO$_2^{2+}$-AIII complex formation.

SD-Fig. 2 Influence of HDEHP concentration on EF in the proposed SFODME method of uranium (sample solution: 15 mL 0.1 M HClO$_4$ containing 50 ng mL$^{-1}$ of uranium, extractant: 50 μL of different concentration of HDEHP solution in 1-dodecanol, stirring rate: 700 rpm, extraction time and temperature: 30 min and 30 °C, cooling time in ice-bath: 5 min).
**SD-Fig. 3** The extraction time effect on EF of uranium extracted by the proposed SFODME method (sample solution: 15 mL 0.1 M HClO₄ containing 50 ng mL⁻¹ of uranium, extractant: 50 μL of 5% w/v HDEHP solution in 1-dodecanol, stirring rate: 900 rpm, extraction temperature: 30 °C, cooling time in ice-bath: 5 min).

**SD-Fig. 4** The influence of extraction temperature on EF of uranium, extracted using the proposed SFODME method (sample solution: 15 mL 0.1 M HClO₄ containing 50 ng mL⁻¹ of uranium, extractant: 50 μL of 5% w/v HDEHP solution in 1-dodecanol, stirring rate: 900 rpm, extraction time: 40 min, cooling time in ice-bath: 5 min).