

Synthesis of size-controlled UO_2 microspheres from the hydrothermal conversion of U(IV) aspartate

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= Supporting information =

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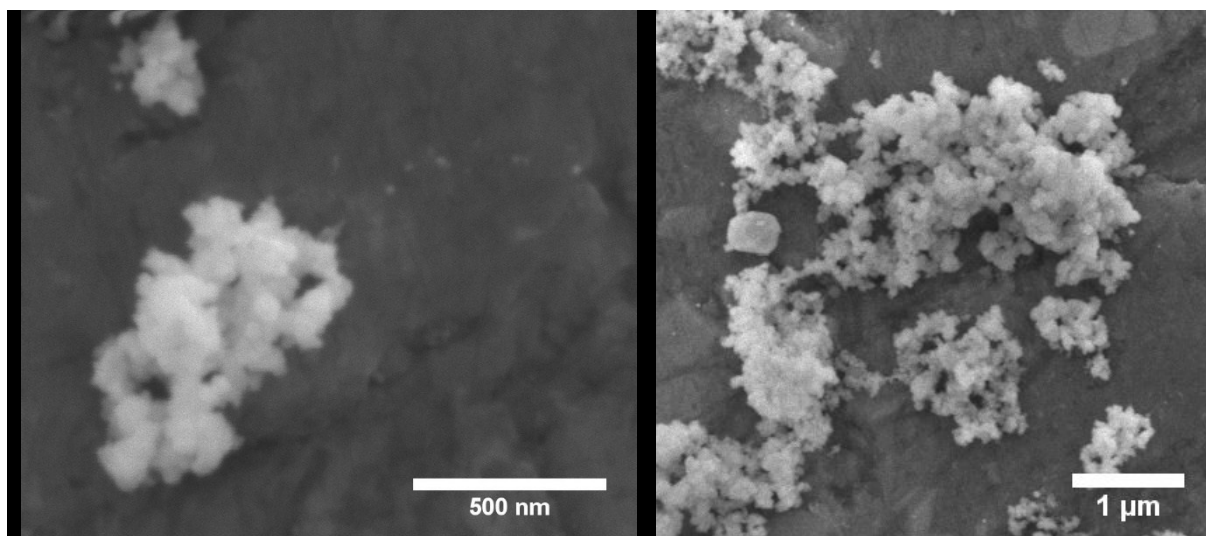


Figure S1. SEM micrographs of the precipitate initially obtained after mixing uranium(IV) hydrochloric solution and aspartic acid.

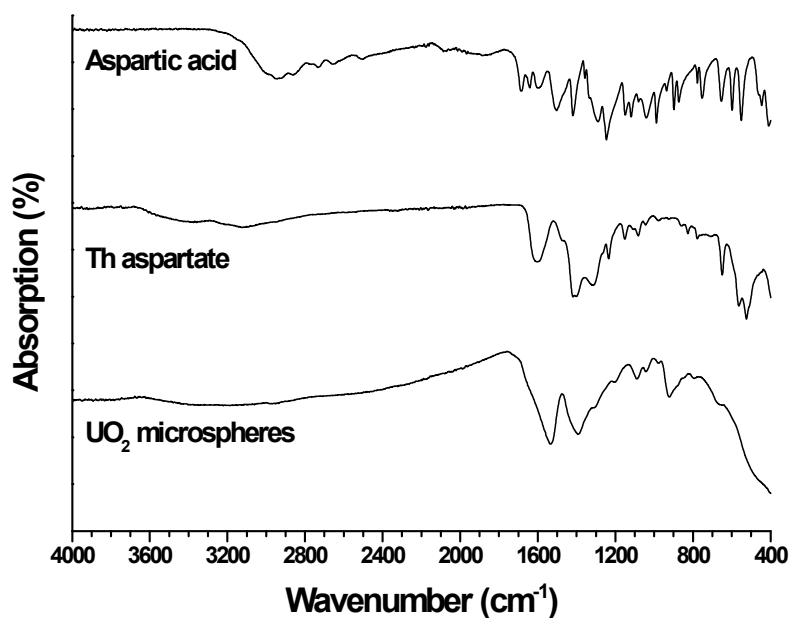


Figure S2. FTIR spectrum of UO₂ particles obtained after hydrothermal conversion of uranium(IV) aspartate and comparison to the reference spectra of aspartic acid and thorium aspartate ²⁴.

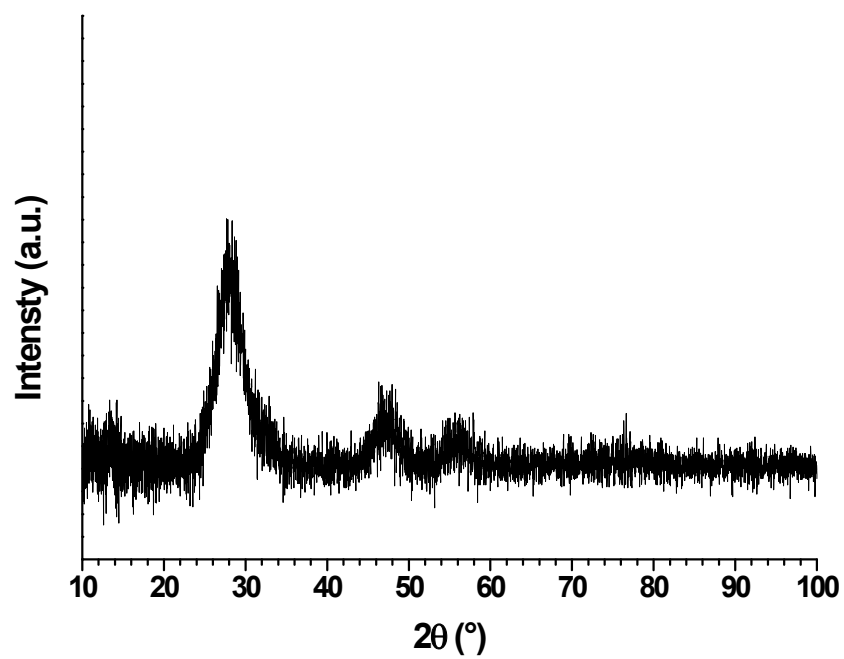


Figure S3. PXRD pattern of the sample obtained after hydrothermal treatment of U(IV) hydrochloric solution without addition of aspartic acid.

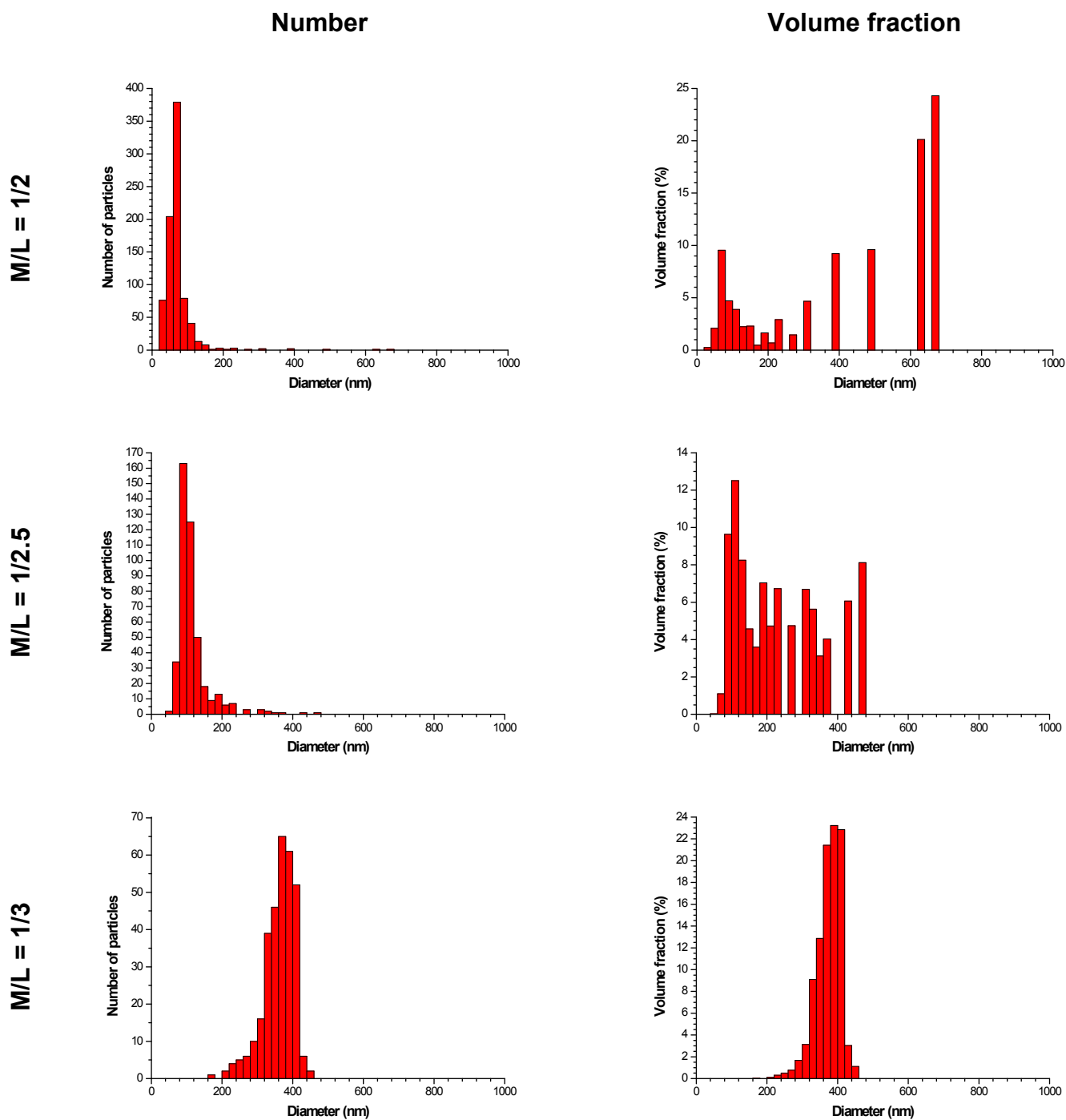


Figure S4. Statistical distribution of the particles size as a function of the initial uranium/aspartic acid ratio (M/L). The plots are presented both in numbers of particles and in volume fraction.

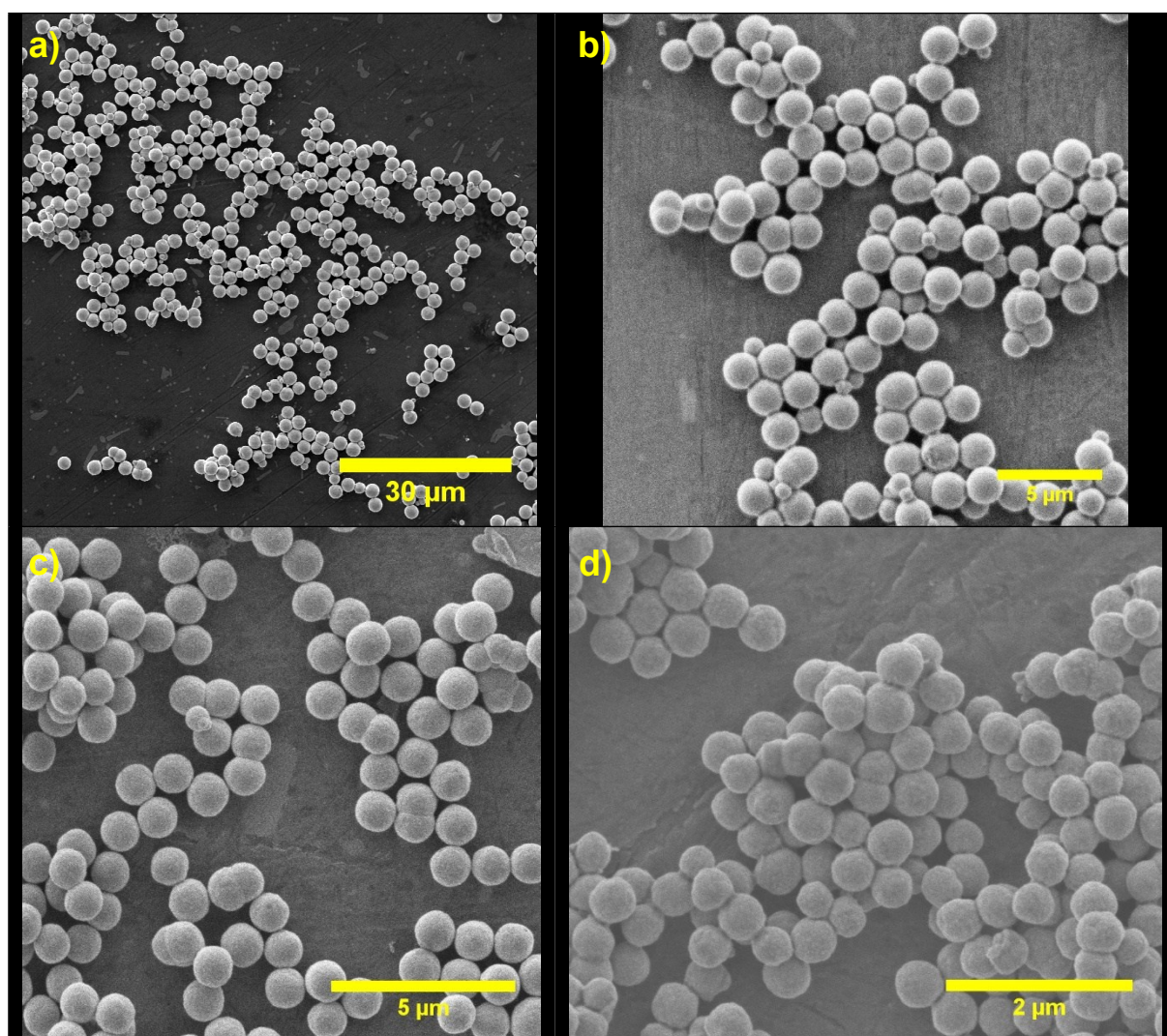


Figure S5. SEM micrographs of the UO_2 particles obtained under magnetic stirring at : a) 900 rpm; b) 950 rpm; c) 1020 rpm and d) 1050 rpm. Corresponding impeller Reynolds numbers (Re_a) are 11370, 12000, 12890 and 13260, respectively.