Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

An in depth physicochemical investigation of drug-loaded core-shell UIO66 nanoMOFs

Mengli Ding[a], Borja Moreira-Álvarez[b*], Francisco Calderón Celis[b*], Jose Manuel Costa-Fernández[b], Jorge Ruiz Encinar[b], and Ruxandra Gref[a*]

Abstract: ICP-MS and AF4 instrumental and operational parameters, TEM images of UiO66 and CD-MO@UiO66 nanoMOFs, AF4-MALS analysis of CD-MO@UiO66-cisplatin.

Table S1. Operational parameters used in the FIA-ICP-MS/MS and AF4-ICP-MS/MS analyses.

ICP-MS Parameters	Flow Injection Analysis	AF4
RF Power (W)	1550	
Sampling depth (mm)	8	
Carrier gas (L/min)	1.05	1.10
Nebulizer pump (rps)	0.2	0.3
O_2 cell gas flow (%)	30	
OctBias (V)	-3	
Axial Acceleration (V)	1.5	
Oct RF (V)	180	
Energy discrimination (V)	-7	
Integration time (s)	0.1	

Table S2. AF4 operational parameters and separation program.

AF4 Parameters	
Injection volume (µL)	20
Injection time (min)	2
Tip flow rate (mL/min)	0.2
Transition time (min)	1
Initial cross flow rate (mL/min)	0.3
Cross flow linear decay (min)	10
Cross flow final constant (min)	5
Detector flow rate (mL/min)	0.3

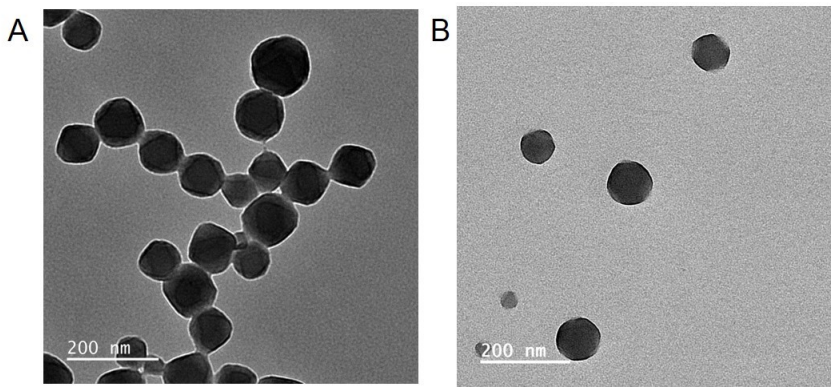

Figure S1. TEM images of (A) UiO66 nanoMOFs and (B) CD-MO@UiO66.

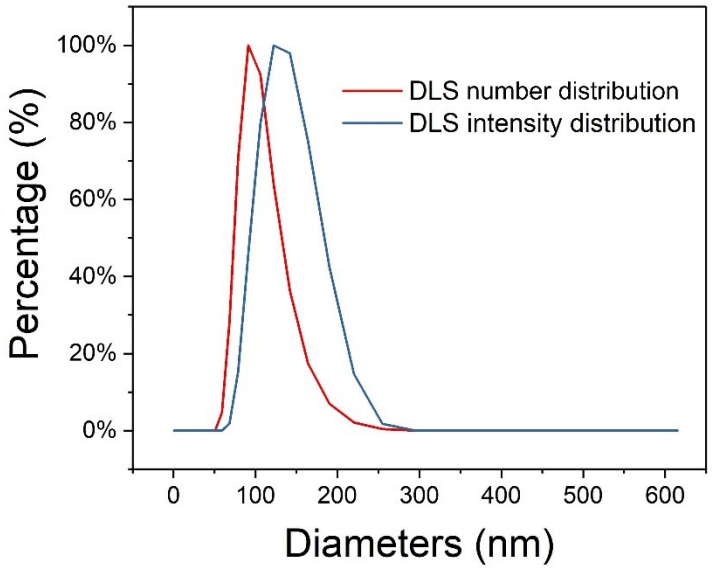

Figure S2. DLS number distribution and intensity distribution of UiO66 nanoMOFs.

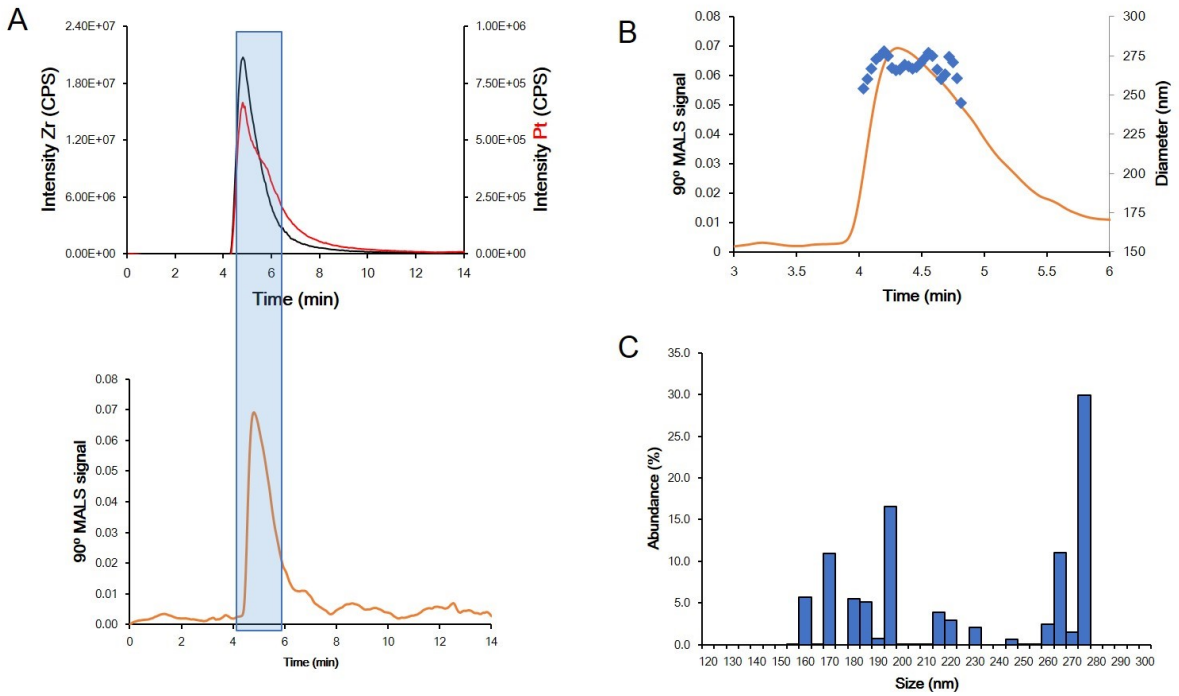

Figure S3. (A) AF4-MALS-ICP-MS/MS fractogram of CD-MO@UiO66-cisplatin, (B) MALS results obtained for the framed area and, (C) histogram of the MALS results.