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Functionalized nonporous silica nanoparticles as carriers for Pt(IV)

anticancer prodrugs.

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ELECTRONIC SUPPLEMENTARY INFORMATION (ESI)

Content:

- Figure S1. Density of amino groups vs. reaction time (silica nanoparticles + AHAMTES).
- **Table S1**.Properties of the synthesized silica nanoparticles (SNPs) d and e.
- **Figure S2.** ²⁹Si{¹H} CPMAS NMR spectrum of SNPs **d**.
- Figure S3. TEM characterization of SNPs d.
- Figure S4. Comparison of the TEM micrographs of SNPs e at different stages of synthesis.
- **Table S2.** % Pt loading with respect to reaction time and Pt/NH₂ groups ratio.
- Figure S5. TEM characterization of Pt(IV)-SNPs: 1d, 2d, 1e and 2e.



Figure S1. Density of amino groups vs. reaction time (silica nanoparticles + AHAMTES). Each point is the mean of three independent experiments ± SD. Note: the maximum amount of amino groups loaded on the NPs was reached at about 38 h of reaction.

SNPs	Reaction time [h]	Density of amino groups [10 ⁻⁴ mol g ⁻¹ NPs]	DLS diameter [nm]	ζ potential [mV]
d	16	2.83	124.6±1.7	52.7±2.0
e	16	0.57	135.3±5.7	22.5±2.0
	27	0.79	150.5±6.3	26.0±1.3
	38	1.31	131.1±4.7	25.9±1.6
	62	1.29	188.4±0.4	24.7±1.7

Table S1. Properties of the synthesized silica nanoparticles (SNPs) d and e.



Figure S2. ²⁹Si{¹H} CPMAS NMR spectrum of SNPs d.



Figure S3. TEM characterization of SNPs d. Note: bar represents 100 nm.

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TEM diameter [nm]	45 ± 4	50 ± 5
DLS diameter [nm]	112 ± 4	130 ± 5
ζ potential [mV]	-13 ± 1	26 ± 2

Figure S4. Comparison of the TEM micrographs of SNPs **e** at different stages of synthesis: silica core only (sample #1478), silica core + AHAMTES (protonated form, sample #1479). Note: bars represent 100 nm.

Table S2. % Pt loading with respect to reaction time and Pt/NH_2 groups ratio.

Conjugata	Departion time [h]	% Pt loading	
Conjugate	Reaction time [n]	[% mol Pt mol ⁻¹ of total amino groups]	
10	1	10.6 ± 0.1	
	2	13.4 ± 0.7	
	4	16.2 ± 0.8	
	8	10.4 ± 0.4	

Conjugate	Pt/amino groups ratio	% Pt loading
	0.5:1	13.3 ± 1.0
1e	1:1	16.2 ± 0.8
i.	2:1	15.8 ± 1.7
	5:1	18.2 ± 0.6

Conjugate	Pt/amino groups ratio	% Pt loading
	0.5:1	9.4 ± 0.3
2e	1:1	12.1 ± 2.0
20	2:1	14.9 ± 0.5
	5:1	17.3 ± 0.9



Figure S5. TEM characterization of Pt(IV)-SNPs: 1d (sample #1501), 2d (sample #1502), 1e (sample #1480), 2e (sample #1481). Note: bars represent 100 nm (samples #1501, 1480, and 1481) and 200 nm (sample #1502), respectively.