

Hydrophilic Polyhedral Oligomeric Silsesquioxane, POSS(OH)₃₂, as a Complexing Nanocarrier for Doxorubicin and Daunorubicin

Kinga Piorecka, Anna Janaszewska, Marta Majkowska, Monika Marcinkowska, Jan Kurjata, Sławomir Kazmierski, Ewa Radzikowska-Cieciura, Bartłomiej Kost, Przemysław Sowinski, Barbara Klajnert-Maculewicz and Włodzimierz A. Stanczyk

Table of Content

Elemental analysis of POSS(OH)₃₂

Table S1. Description of reaction parameters

Figure S1. ¹H NMR (500 MHz, 295K) spectrum of POSS(OH)₃₂ in DMSO-d₆

Figure S2. ¹H NMR (500 MHz, 295K) spectrum of POSS(OH)₃₂ in D₂O

Figure S3. FTIR spectrum of POSS(OH)₃₂

Figure S4. ²⁹Si NMR spectrum of POSS(OH)₃₂ (500 MHz, 295K) in D₂O

Elemental analysis of POSS(OH)₃₂ samples from three independent syntheses under the same reaction conditions: C 42.02 H 8.06 N 5.36; C 42.08 H 8.03 N 5.32 and C 42.08 H 8.02 N 5.38 (theor. C 41.84, H 7.80, N 5.42).

Table S1. Description of reaction parameters.

Drugs	Technique	Concentration of drug [g·ml ⁻¹]	Solvent	Molar ratio (drug : POSS)	Reaction/analysis temperature (K)
DOX-POSS	COSY				295
	2D NOESY	5·10 ⁻³	DMSO-d ₆	8:1	295
	FTIR	2.22·10 ⁻²	H ₂ O (pH 6.2)	8:1	310
		7.40·10 ⁻³	PBS (pH 7.3)		
DAU-POSS	COSY				295
	2D NOESY	5·10 ⁻³	DMSO-d ₆	8:1	310
	FTIR	2.22·10 ⁻²	H ₂ O (pH 6.2)	8:1	310
			or PBS (pH 7.3)		

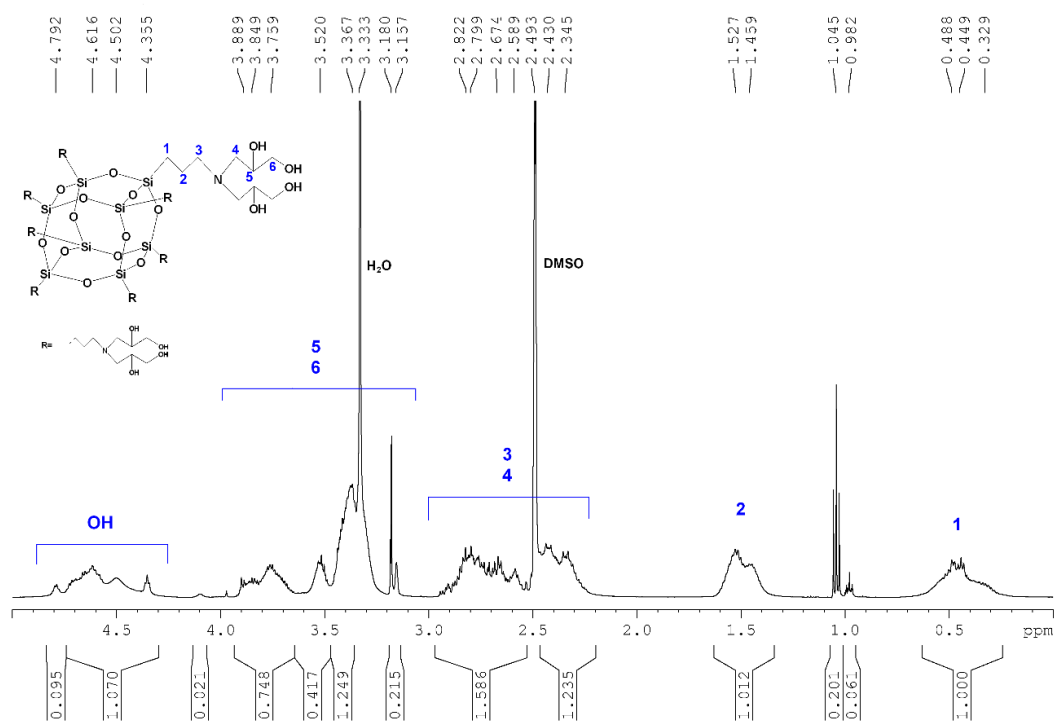


Figure S1. ^1H NMR (500 MHz, 295K) spectrum of $\text{POSS}(\text{OH})_{32}$ in DMSO-d_6 .

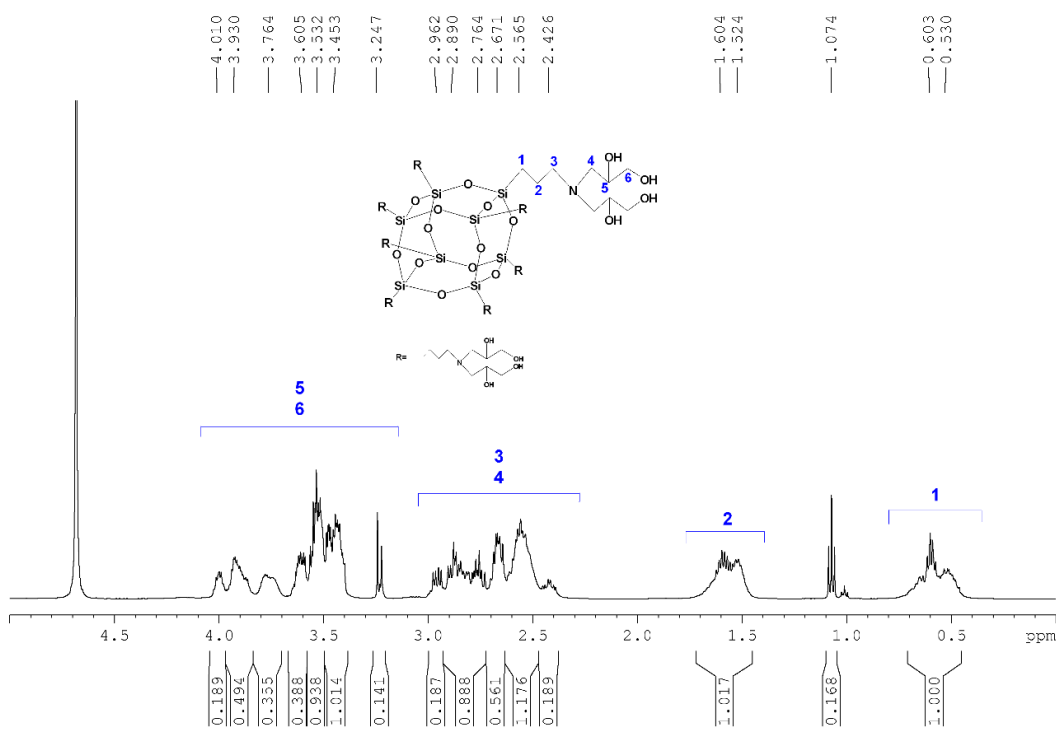


Figure S2. ^1H NMR (500 MHz, 295K) spectrum of $\text{POSS}(\text{OH})_{32}$ in D_2O .

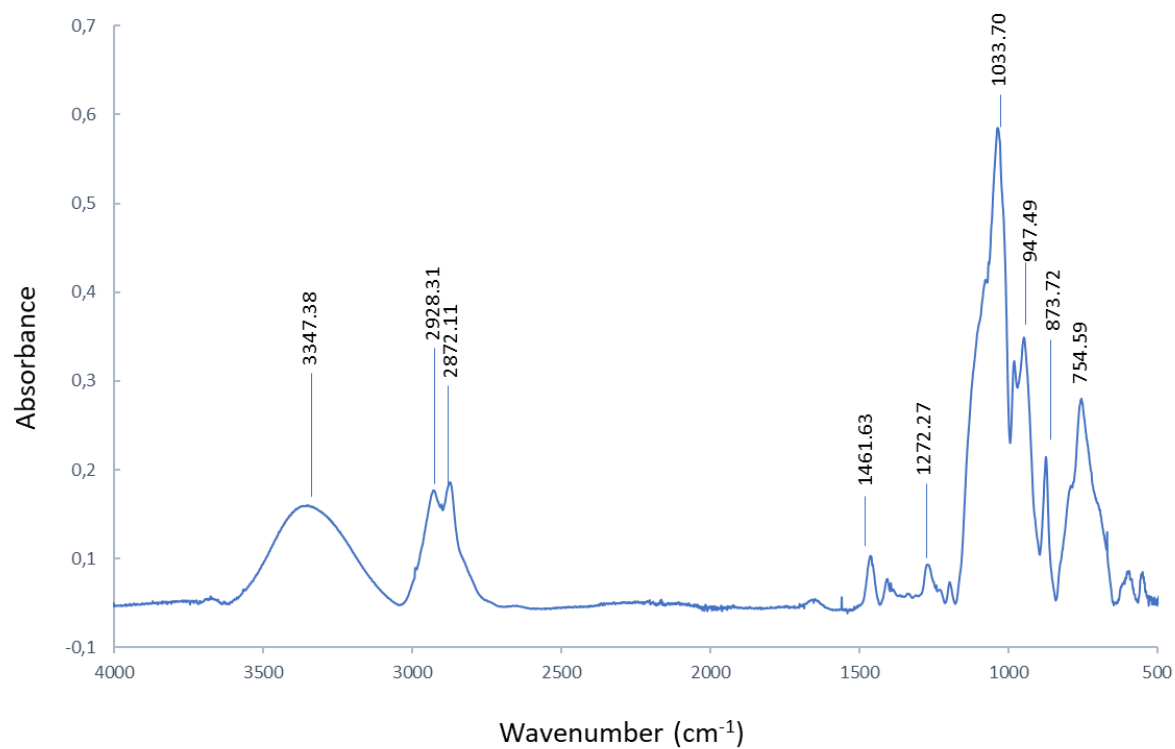


Figure S3. FTIR spectrum of POSS(OH)₃₂.

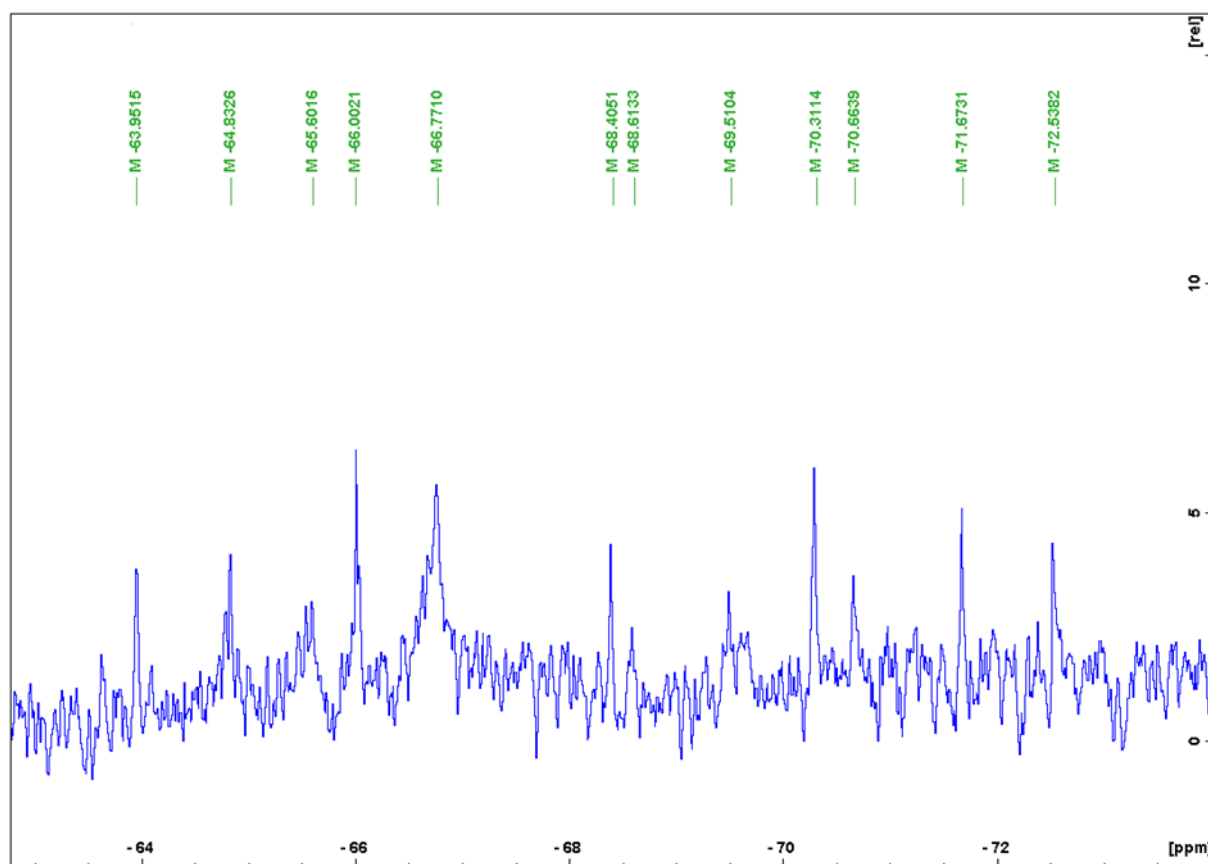


Figure S4. ²⁹Si NMR spectrum of POSS(OH)₃₂ (500 MHz, 295K) in D₂O.