SUPPORTING INFORMATION

DNA ADSORBED ON HYDROXYAPATITE SURFACES

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Table S1. Experimental conditions used for the preparation of the different HAp samples.

Label	HAp particles	Conditions
HAp1	Mixed: amorphous sheets and rods	Commercial: Bio-Gel® HTP Gel purchased from BIO-RAD
HAp2	Sheet crystals: flower-like and laminar	Reagent: Quick addition of 0.3 M $Ca(NO_3)_2$ ethanol solution. Reaction: pH = 8.0 and 40ºC. Treatments: Hydrothermal conditions and 24 h of aging at room temperature.
HAp3	Nanospheres	Reagent: Quick addition of 0.5 M $Ca(NO_3)_2$ ethanol solution. Reaction: pH > 11 and room temperature. Treatments: Non-hydrothermal conditions and 24 h of aging at 37 ºC.
HAp4	Fusiform rods	Reagent: Drop-wise addition of 0.3 M $Ca(NO_3)_2$ aqueous solution. Addition of ethanolamine as surfactant. Reaction: pH = 10.0 and 60ºC. Treatments: Hydrothermal conditions and 24 h of aging at room temperature.

Table S2. Main infrared absorption bands (cm^{-1}) for HAp particles. Integrated band relative areas are displayed in parenthesis.

	PO_4^{3-}		CO_3^{2-}	
	υ_1	υ_3	υ_2	υ_3
HAp1	957	1016,1084	862	1419
	(5.03%)	(57.93%,19.87%)	(3.73%)	(13.43%)
HAp2	994	1058,1125	900	1376
	(19.30%)	(38.79%,22.97%)	(5.15%)	(13.78%)
HAp3	954	1013,1090	826,873	1330,1424
	(2.91%)	(44.16%,10.04%)	(1.24%,1.21%)	(23.18%,17.26%)
HAp4	962	1022,1059,1089	867	1346,1433
	(5.28%)	(52.06%,4.22%,17.6%)	(3.22%)	(10.58%,7.03%)

Table S3. Results obtained from modeling (see Eqn 3) of the protonation ability of HAp particles.

	pH (initial)	y_0	A	τ (mM)	r^2
HAp1	7.02	5.32±0.05	1.55±0.07	1.61±0.17	0.9726
HAp2	7.93	5.59±0.06	2.16±0.07	1.75±0.13	0.9866
HAp3	6.78	4.89±0.07	1.79±0.06	3.12±0.28	0.9907
HAp4	7.08	3.61±0.09	3.20±0.10	1.94±0.17	0.9852