Effect of the Materials Properties of Hydroxyapatite Nanoparticles on Fibronectin Deposition and Conformation

Fei Wu,[†] Debra D. W. Lin,[†] Jin Ho Chang,[‡] Claudia Fischbach,^{‡,§} Lara A. Estroff,^{†,§} Delphine Gourdon^{*,†,‡}

[†]Department of Materials Science and Engineering, Cornell University, Ithaca, NY 14853 USA

[‡]Department of Biomedical Engineering, Cornell University, Ithaca, NY 14853 USA

[§]Kavli Institute at Cornell for Nanoscale Science, Ithaca, NY 14853, USA

* Corresponding Author:

Department of Materials Science and Engineering

Cornell University

Ithaca, NY 14853 USA

E-mail: dg434@cornell.edu

Tel.: +1 (607) 255-1623

Fax: +1 (607) 255-2365

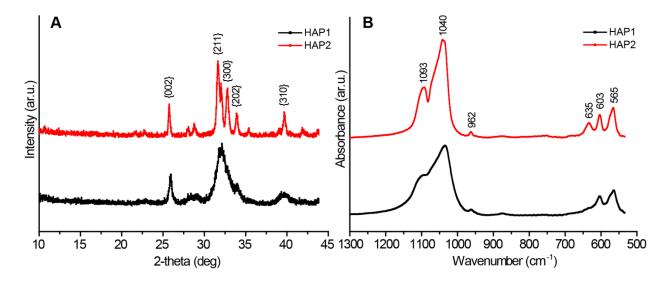


Figure S1. (A) pXRD pattern of nanoparticles. The phase of both HAP1 and HAP2 was confirmed to be pure HAP, major peaks labeled with Miller indices. (B) FTIR spectra of HAP nanoparticles. Major HAP peaks are labeled.

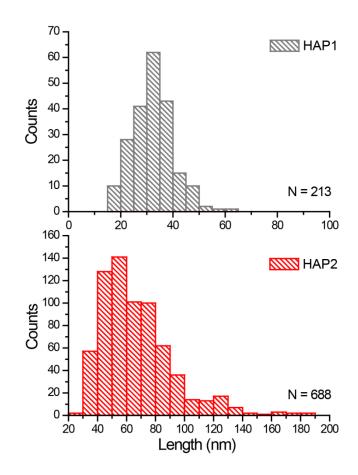


Figure S2. Size distributions along c-axis of HAP1 (top) and HAP2 (bottom) nanoparticles (TEM).

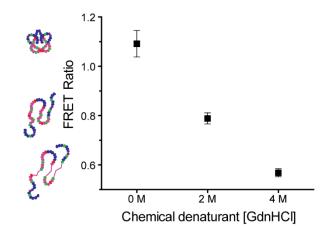


Figure S3. Soluble calibration of FRET ratio (*i.e.*, acceptor intensity/donor intensity) as a function of chemical denaturant (guanidine hydrochloride, GdnHCl) concentration. The schematics at left illustrate Fn conformations at various FRET ratios obtained via circular dichroism measurements. Data shown as means and standard deviations, with 8 to 10 measurements per sample.