

Supporting Information

Nanoporous Anodic Alumina Surface Modification by Electrostatic, Covalent and Immune Complexation Binding Investigated by Capillary Filling

**Chris Eckstein, Laura K. Acosta, Laura Pol, Elisabet Xifré-Pérez, Josep Pallarès, Josep
Ferré-Borrull and Lluís F. Marsal*.**

Universitat Rovira i Virgili, Departament d'Enginyeria Electrònica, Elèctrica i Automàtica,
Nano-electronic and Photonic Systems (NePhoS) group
Avda. Països Catalans 26, 43007 Tarragona, Spain.

*E-mail: lluis.marsal@urv.cat

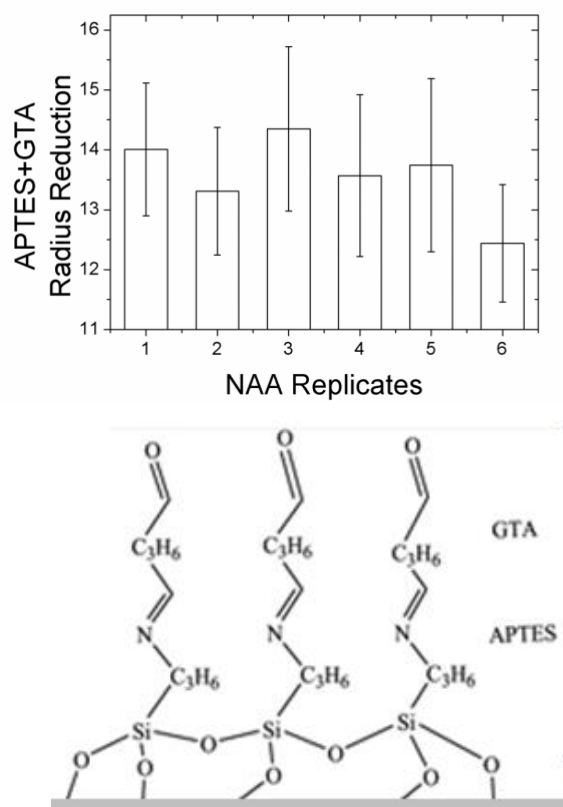


Figure S1: (top) Average radius reduction due to APTES+GTA functionalization of 13.56 ± 1.32 nm estimated by FICLI for 6 NAA replicates. **(bottom)** Scheme of APTES+GTA with a theoretical thickness of less than 2nm, according to the sum of the individual bond lengths.

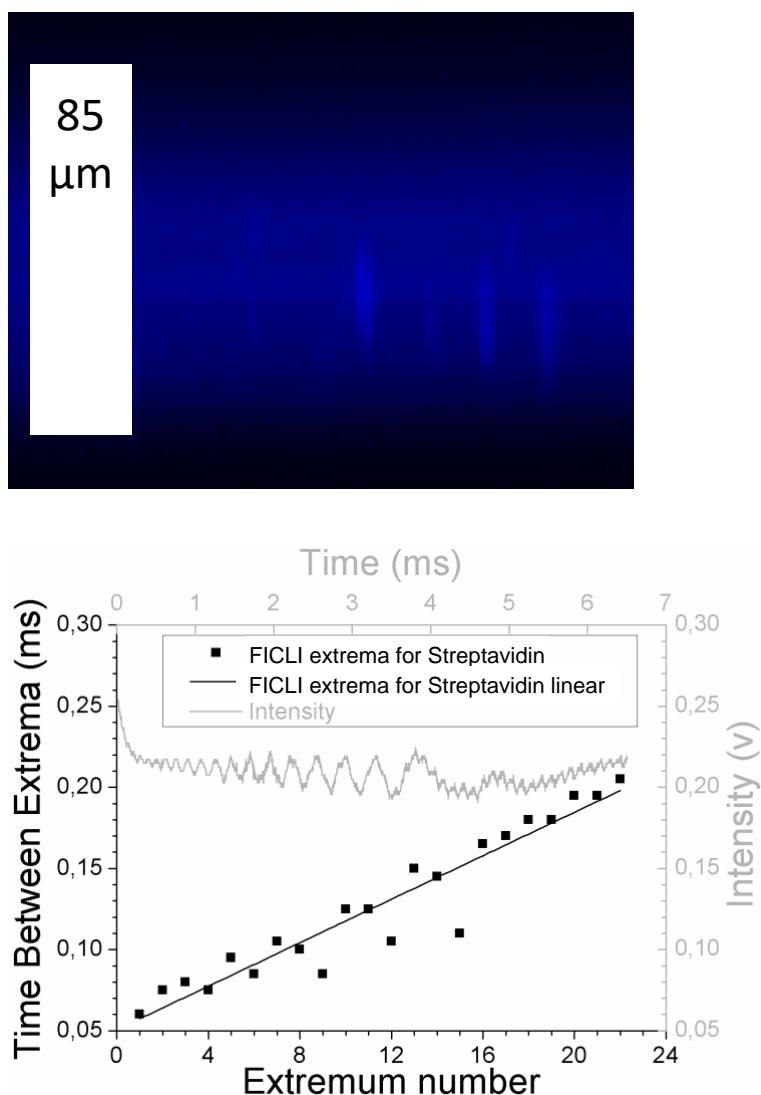


Figure S2: (top) Fluorescence confocal microscopy image of the NAA cross-section visualizing the immobilized streptavidin via its fluorescence marker throughout the NAA thickness. (bottom) Light intensity interferences and their respective time differences between two adjacent extrema showing linear fluid imbibition for streptavidin.

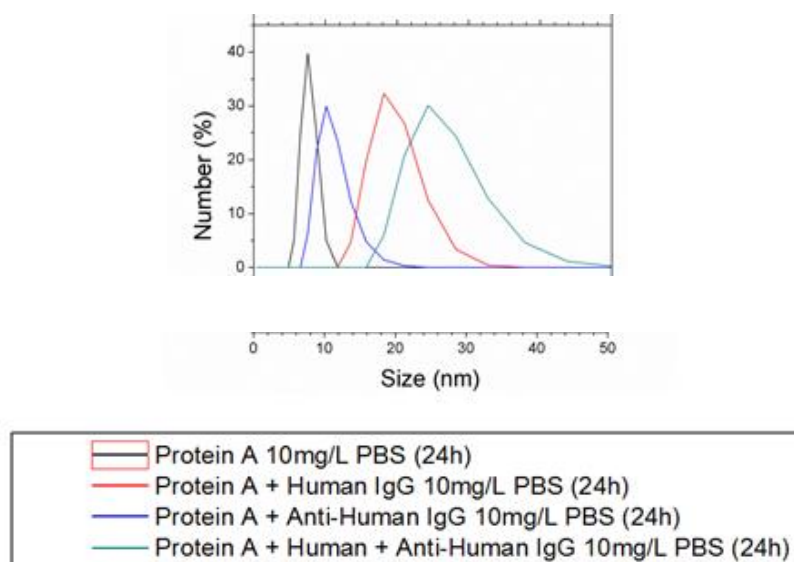


Figure S3: DLS measurements supporting low affinity of Protein A and Anti-Human IgG, and high affinity of Protein A and Human IgG, after 24 hours of incubation in solution.