

Supplementary Information

Creating biomimetic surfaces through covalent and oriented binding of proteins

Sébastien Chevalier¹, Carlos Cuestas-Ayllon², Valeria Grazu², Monica Luna³, Helene Feracci^{1} and
Jesus M. de la Fuente^{2*}*

¹Université Bordeaux 1, CNRS UPR 8641, Centre de Recherche Paul Pascal, 115 Avenue Dr
Schweitzer, 33600 Pessac (France)

²Instituto de Nanociencia de Aragon-ARAID, University of Zaragoza, Campus Rio Ebro, Edif. I+D, C/
Mariano Esquillor s/n, Zaragoza 50018 (Spain)

³Instituto de Microelectrónica de Madrid (IMM-CSIC), C/ Isaac Newton 8, PTM 28760 Tres Cantos,
Madrid (Spain).

* Corresponding authors, e-mail: feracci@crpp-bordeaux.cnrs.fr & jmfuente@unizar.es

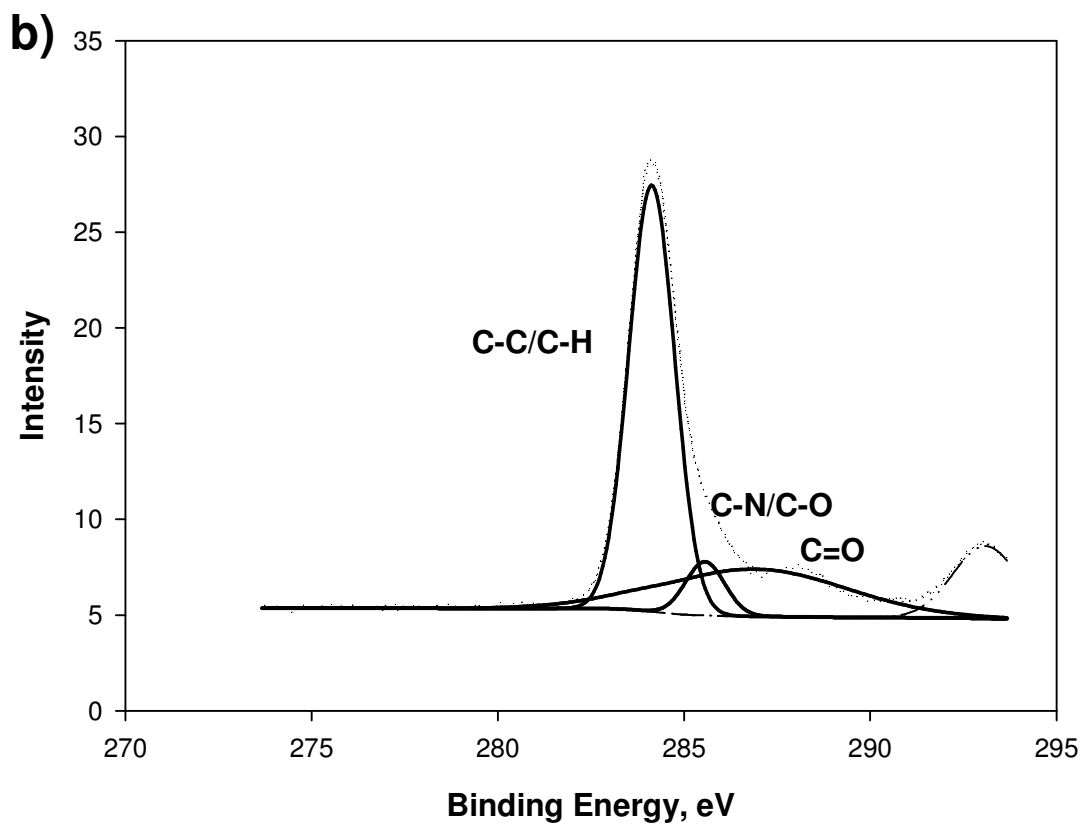
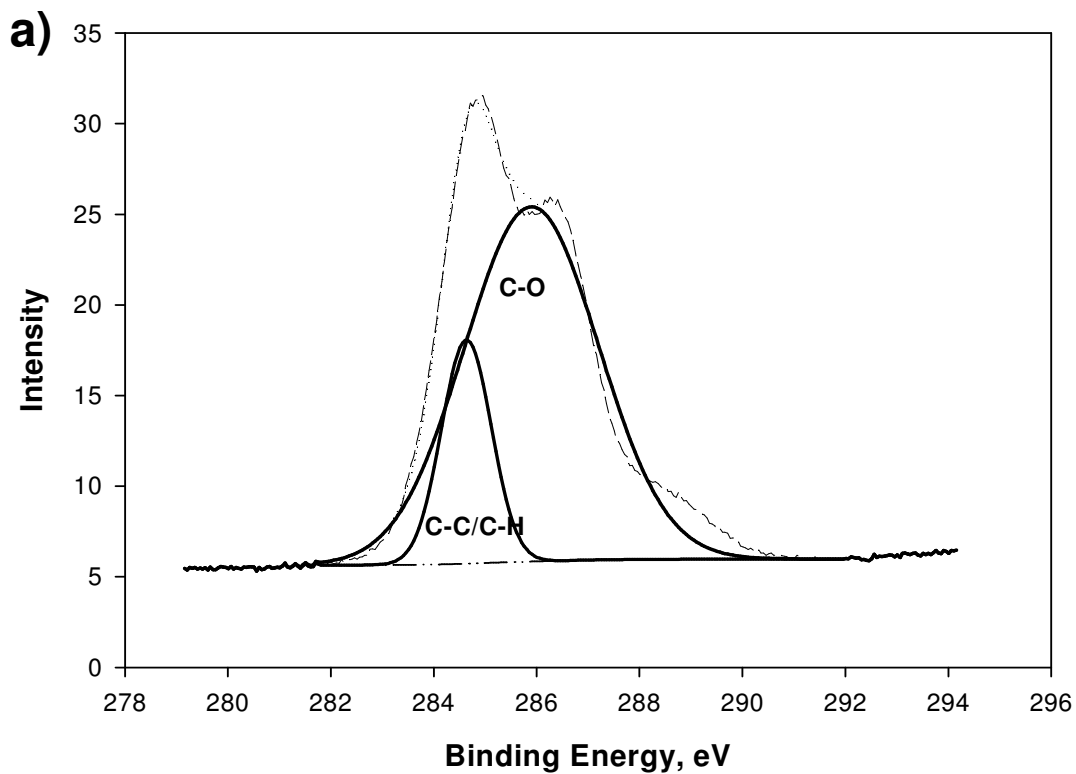


Figure S1. XPS spectra for: **a)** silanized glass supports; **b)** glass supports functionalized with NTA. Appearance of C=O peak probe the functionalization of the supports with NTA.

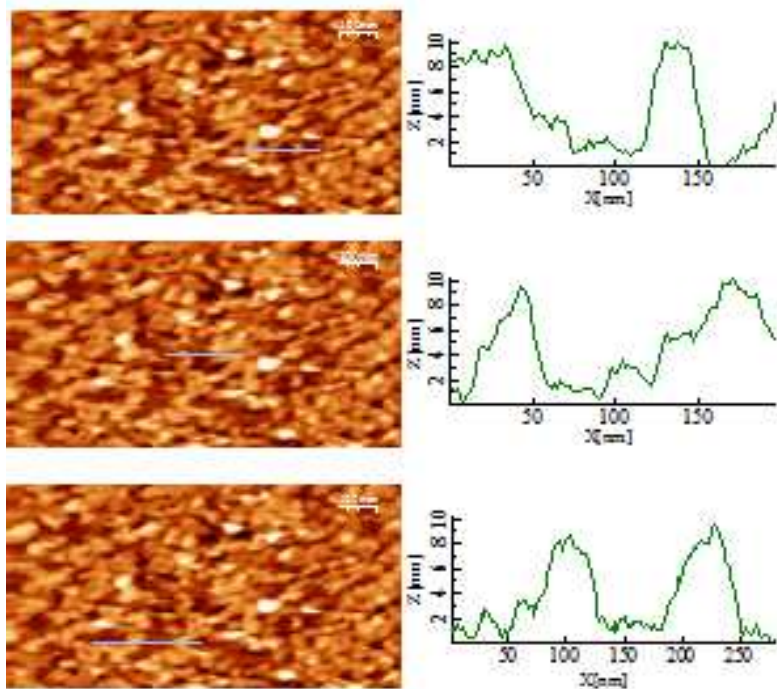


Figure S2. Dynamic Atomic Force Microscopy analysis of surfaces. Images of the functionalized surfaces were taken under the same conditions (PBS + Ca^{2+} + Mg^{2+}). The coverage height is close to a single molecule height (~ 9 nm).

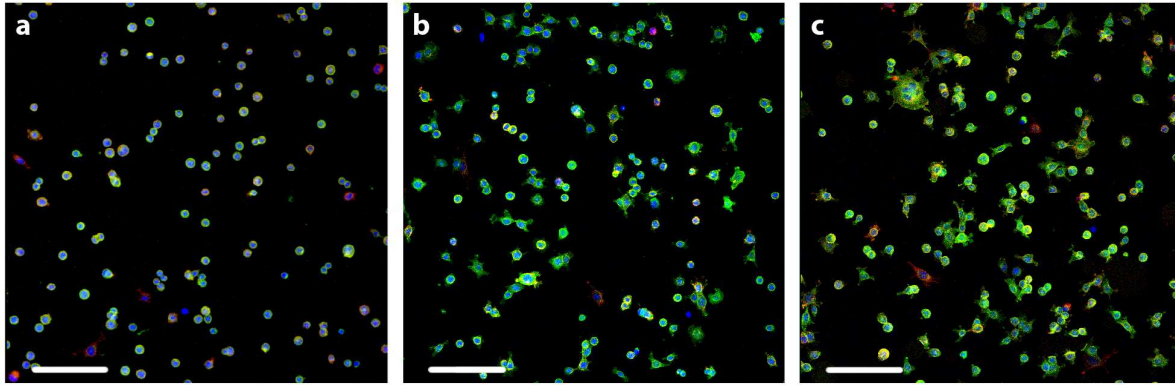


Figure S3. Characterization of cadherin adhesion topography. HC11 cells were allowed to adhere in surfaces: (a) without cadherin, (b) with cadherin non oriented, (c) with cadherin oriented and covalent. Scale bar= 100 μ m