

<b>Personal Information</b>		
Full name	Nicolás Lorente	
Current position	Researcher	
Organization	Consejo Superior de Investigaciones Científicas	
Country	Spain	
<b>Short Biography</b>		
<p>Prof. N. Lorente did his doctoral studies in Universidad Autónoma de Madrid in the time-dependent density functional description of electrons correlations in Auger processes under the supervision of Prof. R. Monreal. His first postdoc dealt with the neutralization of molecular ions on metal surfaces under the supervision of Dr. J.-P. Gauyacq, Orsay, France. He worked on the density functional theory description of surface dynamics and scanning tunneling microscope simulations under the supervision of Prof. M. Persson, Chalmers University, Sweden. He was appointed Associated Professor (Maître de Conférences) in the Université Paul Sabatier, Toulouse, France in 2000. He studied the dynamics of molecules under electron tunneling injection. Together with Prof. J. I. Pascual and co-workers, he published the article “Selectivity in vibrationally mediated single-molecule chemistry”, where his analysis of vibrational excitation and de-excitation via electron-vibration coupling granted new insight in the way of yielding controlled energy to given chemical bonds [1]. Promoted to Professeur des Universités in 2006 and member of the Institut Universitaire de France, he moved to Barcelona, Spain, in 2007. Recently he continued his study of dynamics at surfaces studying magnetic dynamical process of single magnetic objects. Kondo physics, decoherence, spin torque and electron-magnetic moment coupling are some of the keywords of his recent research [2-5]. He is permanent research staff of Centro de Física de Materiales of San Sebastián, Spain and associated member of the DIPC, San Sebastián.</p> <p>[1] J. I Pascual et al. Nature 423, 525 (2003); [2] N. Lorente and J.-P. Gauyacq, Phys. Rev. Lett. 103, 176601 (2009); [3] T. Komeda et al, Nature Comm. 2, 217 (2011); [4] J.-P. Gauyacq et al, Phys. Rev. Lett. 110, 087201 (2013); [5] M. Ormaza et al, Nano Letters 16, 558 (2016).</p>		