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Mn linear chains deposited on CuN/Cu(001): environment effects on the Mn-Mn interactions MARIA ANDREA BARRAL, Departamento de Física, FCEyN, Univeridad de Buenos Aires, ANA MARIA LLOIS, Departamento de Física, FCEyN, Universidad de Buenos Aires, RUBEN WEHT, Departamento de Fisica, CNEA, GUSTAVO LOZANO, Departamento de Fisica, FCEyN, Universidad de Buenos Aires — Scanning tunneling microscopy (STM) was used recently to study the interaction among manganese atoms deposited on thin insulating copper nitride islands grown on Cu(001). The value of the exchange interaction J among manganese atoms for different atomic arrangements was obtained, showing that it strongly depends on the Mn deposition sites. In this contribution we present the result of ab initio calculations for different arrangements of infinite Mn chains on CuN/Cu(001) to understand the influence of the environment on the Mn-Mn exchange interactions.

Maria Andrea Barral
Departamento de Física, FCEyN, Univeridad de Buenos Aires

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