Abstract Submitted
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ESR-STM Spectrometer for Paramagnetic Molecular Adsorbates on Surfaces[1] PAOLO MESSINA[2], MSD Argonne Nat. Lab., US, MATTEO MANNINI, Dept. Chemistry University of Florence, Italy, ANDREA CANESCHI, DANTE GATTESCHI, LORENZO SORACE, PAOLO SIGALOTTI, ApeResearch Trieste, Italy, CRISTIAN SANDRIN, PAOLO PITTANA, Elettra Sincrotrone S.P.A. Trieste, Italy, YISHAY MANASSEN, Bengurion University of the Negev, Israel — ESR-STM is a technique able to detect noise at the Larmor frequency in the tunnelling current associated with the spin dynamics of a single paramagnetic center on the surface. Several questions concerning details of this phenomenon in different magnetic fields and tunnelling currents, and for different paramagnetic centers are still debated. In this paper we describe the construction and the testing of an instrument able to detect the ESR-STM signal from organic paramagnetic molecules (DPPH and BDPA) deposed on Au(111) at different magnetic fields. First results on these molecules are presented.

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[2]I have just subscribed to be an APS member

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