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Direct visualization of metal ions in supramolecules. M.S. ALAM, V. DREMOV, P. MÜLLER, Physikalisches Institut III, Universität Erlangen, Germany , R. ALSFASSER, Institut für Anorganische Chemie, Universität Freiburg, Germany, U. KORTZ, School of Engineering and Sciences, International University Bremen, Germany, M. RUBEN, INT, FZ Karlsruhe, Germany, L.K. THOMPSON, Dept. of Chemistry, Memorial University, St. Johns, NL, Canada, J.M. LEHN, ISIS, Université Louis Pasteur, Strasbourg, France — We performed high resolution scanning-tunneling microscopy with simultaneous current-voltage characteristics (STS) measurements on single molecules deposited on graphite surfaces. We present our recent results on Co [2×2], Mn [3×3] grid-type molecules, Cu_{20} wheel-shaped polyoxoanions, as well as on Cu coordination polymers. In our STS measurements we found a rather large signal at the positions of the metal centers in the molecules i.e. the location of the individual metal ions in their organic matrix is directly addressable by STS even if these ions are covered by the organic ligands.

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