Exploring charge transport properties and functionality of molecule-nanoparticle ensembles

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Table of abbreviations

AcS-BPP	S-(4-{[2,6-(bipyrazol-1-yl)pyrid-4-yl]ethynyl}phenyl)ethanethioate molecule where the S anchoring group is protected by an acetyl leaving group
Array	2D single layer ensemble
Au	Gold
BPP	2,6-Bi(Pyrazolyl)Pyridine
C8	Octane(mono)thiol
E_C	Charging energy
EDX	Energy-Dispersive X-ray (spectroscopy)
EtOH	Ethanol
$[Fe(AcS\text{-}BPP)_2](ClO_4)_2$	Fe^{2+} (S-(4-{[2,6-(bipyrazol-1-yl)pyrid-4-yl]ethynyl}phenyl)ethanethioate)$_2$ - $(ClO_4)_2$ complex
HAADF-STEM	High Angle Annular Dark Field-Scanning Transmission Electron Microscopy
HAR	High Aspect Ratio
$HAuCl_4$	HydroChloroauric acid (also called Gold(III) chloride hydrate)
HS	High-Spin
I-V	Current as function of the Voltage
LS	Low-Spin
MeCN	Acetonitril
Network	A quasi 2D or multiple (i.e. here 3 layers) layer ensemble

NP	Nanoparticle
OPE	Oligo(phenylene ethynylene)
PDMS	Polydimethylsiloxane
RPM	Rotations per minute
R-T	Resistance as function of the Temperature
SAM	Self-Assembled Monolayer
SCO	Spin crossover
SEM	Scanning Electron Microscope
SERS	Surface-enhanced Raman spectroscopy
SPR	Surface Plasmon Resonance
SQUID	Superconducting Quantum Interference Device
ST	Spin transition
3D	Three-dimensional
TEM	Transmission Electron Microscope
2D	Two-dimensional
UV-Vis	Ultraviolet-Visible light spectrum
VRC	Variable Range Cotunneling
VRH	Variable Range Hopping