Electrocrystallization of Tetrathiafulvalene Chargetransfer Salt Nanorods on Gold Nanoparticle Seeds

Li Li, Pedram Jahanian, and Guangzhao Mao*

Department of Chemical Engineering and Materials Science, Wayne State University,

5050 Anthony Wayne Drive, Detroit, MI 48202

*Corresponding author: gzmao@eng.wayne.edu

RECEIVED DATE (to be automatically inserted after your manuscript is accepted if required according to the journal that you are submitting your paper to)

SUPPORTING INFORMATION

GNP			(TTF)Br _{0.76}			
Height by AFM (nm)	Diameter by AFM (nm)	Diameter by SEM (nm)	Height by AFM (nm)	Width by AFM (nm)	Length by AFM (µm)	Width by SEM (nm)
19.6 ± 2.1	48.1 ± 6.8	-	6.9 ± 1.1	32.1 ± 7.7	0.1 - 0.5	-
134.8 ± 44.1	289.0 ± 57.0	333 ± 85	31.8 ± 6.2	106.4 ± 16.8	0.8 - 2	99 ± 48
$19.2 \pm 4.8*$	$1050\pm208*$	$683 \pm 139*$	11.4 ± 4.8	54.3 ± 11.8	0.1 - 0.5	70.5 ± 20.4

* Dendritic GNPs.

Table S1. The dimensions of GNPs and (TTF)Br_{0.76} nanorods by AFM and field-emission SEM.



Figure S1. AFM height images of GNPs on HOPG. The electrolyte solution is 0.1 mM HAuCl_4 . The applied overpotential and deposition time is (a) -0.1 V and 10 ms, (b) -0.9 V and 10 ms, (c) - 0.5 V and 0.1 s, and (d) -0.5 V and 1 s. Z range is 20 nm for all the images.



Figure S2. EDS results of (a) a GNP (marked by the circle) connected to (b) a $(TTF)Br_{0.76}$ nanorod (marked by the rectangle) on HOPG.