

Supplementary Material

# Surface Enhanced Raman Spectroscopy with Electrodeposited Copper Ultramicro-Wires with/without Silver Nanostars Decoration

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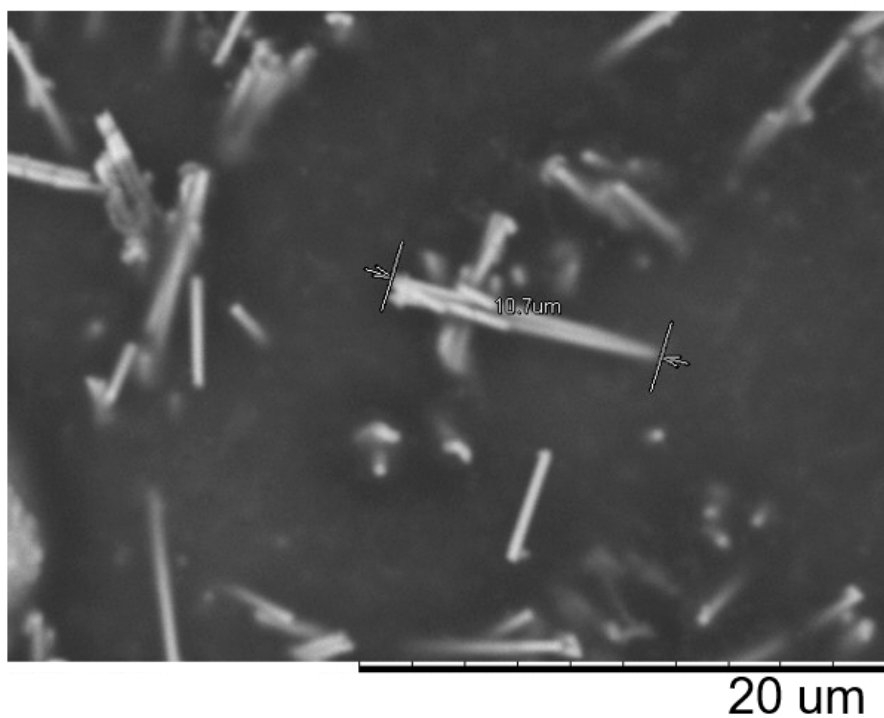
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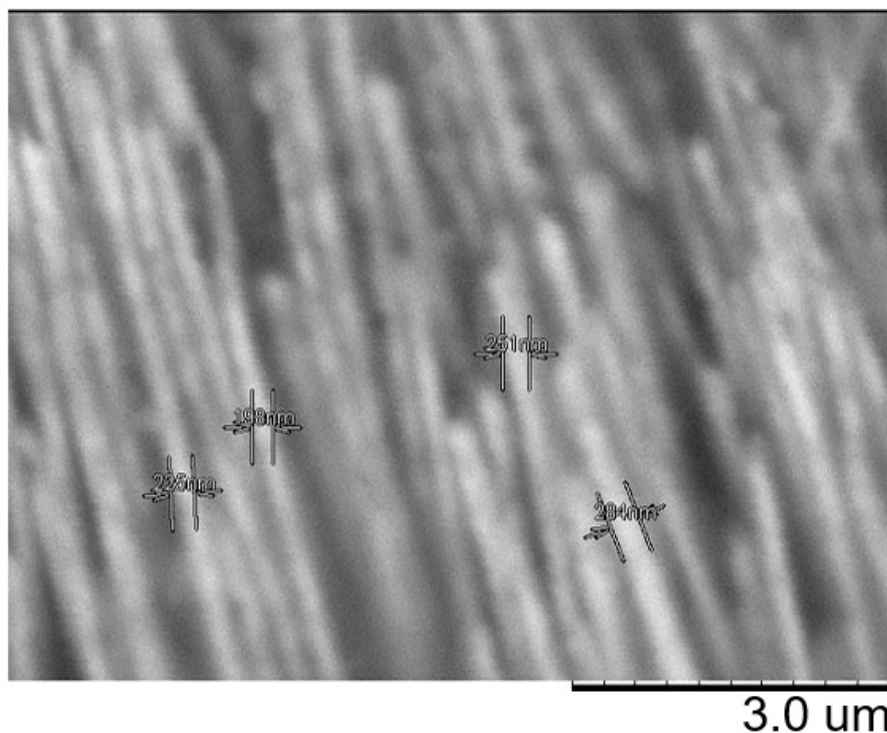
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**Figure S1.** Detail of SEM analysis of copper wires prepared in PC template on GC working electrode. Other parameters as in Figure 7.



**Figure S2.** Detail of SEM analysis of copper wires prepared in AAO template on Cu working electrode. Other parameters as in Figure 8.

**Table S1.** Analysis of the vibrational spectral features of benzenethiol and related literature references.

Wavenumber (cm <sup>-1</sup> )	Assignment	Ref.
412-415	C-S stretching + ring in-plane deformation ( $\beta_{\text{CC}}$ )	[1-3]
466	Out of plane ring deformation	[4]
582	Ring in-plane deformation ( $\beta_{\text{CC}}$ ) + C-S stretching	[2]
688	Ring in-plane deformation ( $\beta_{\text{CC}}$ ) + C-S stretching	[1,2,5]
	$\gamma_{\text{CC}}$ (Out of plane bending)	[3]
994-998	Ring out-of-plane deformation + C-H out-of-plane bending	[1,6]
	C-H out-of-plane bending	[3,7]
	Ring in-plane deformation ( $\beta_{\text{CC}}$ )	[2]
	Ring breathing	[5]
1018-1025	Ring in-plane deformation + C-C symmetric stretching	[1,5,8]
	C-C symmetric stretching	[7]
	C-H in-plane deformation ( $\beta_{\text{CH}}$ )	[2,3]
	Ring breathing	[5]
1070-1072	ring in plane deformation + C-S stretching	[2-5,8]
	C-C asymmetric stretching + C-S stretching	[1]
	C-C symmetric stretching	[7]
1570-1581	C-C stretching	[2,3,5,8]

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