

## Supporting information

### Single-Cell Migration as Studied by Scanning Electrochemical Microscopy

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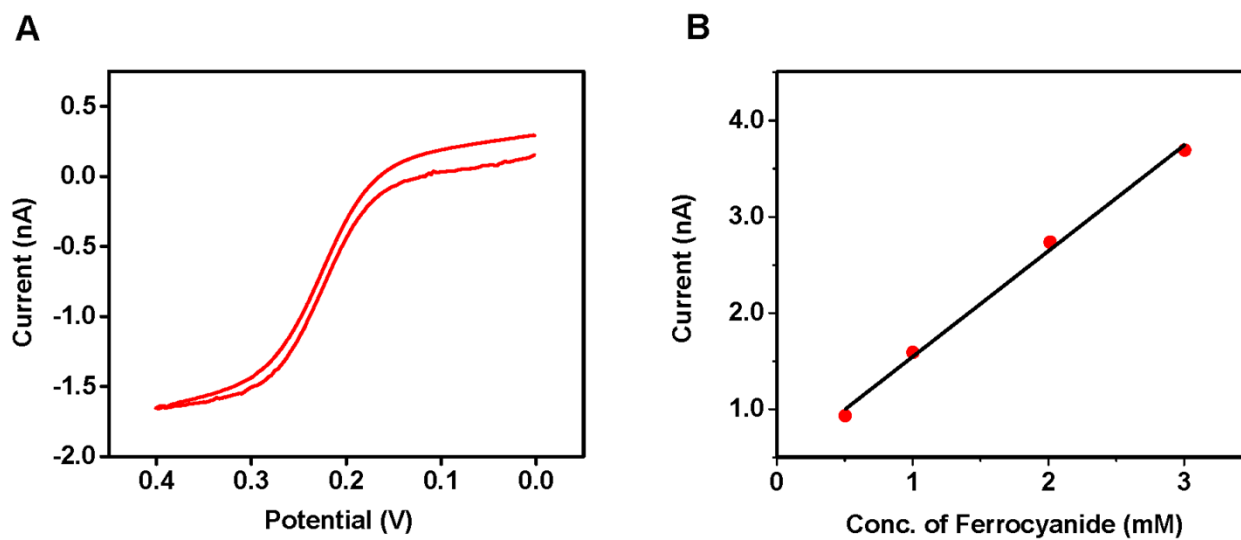
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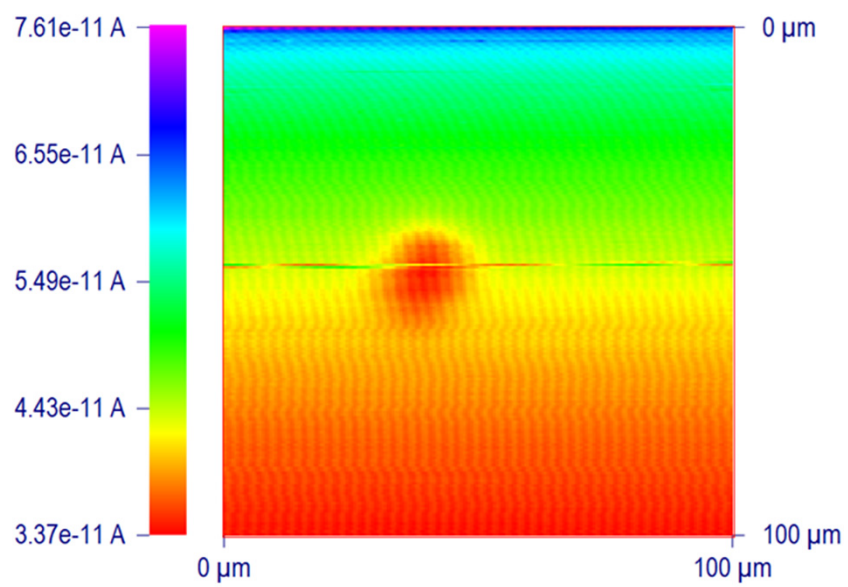
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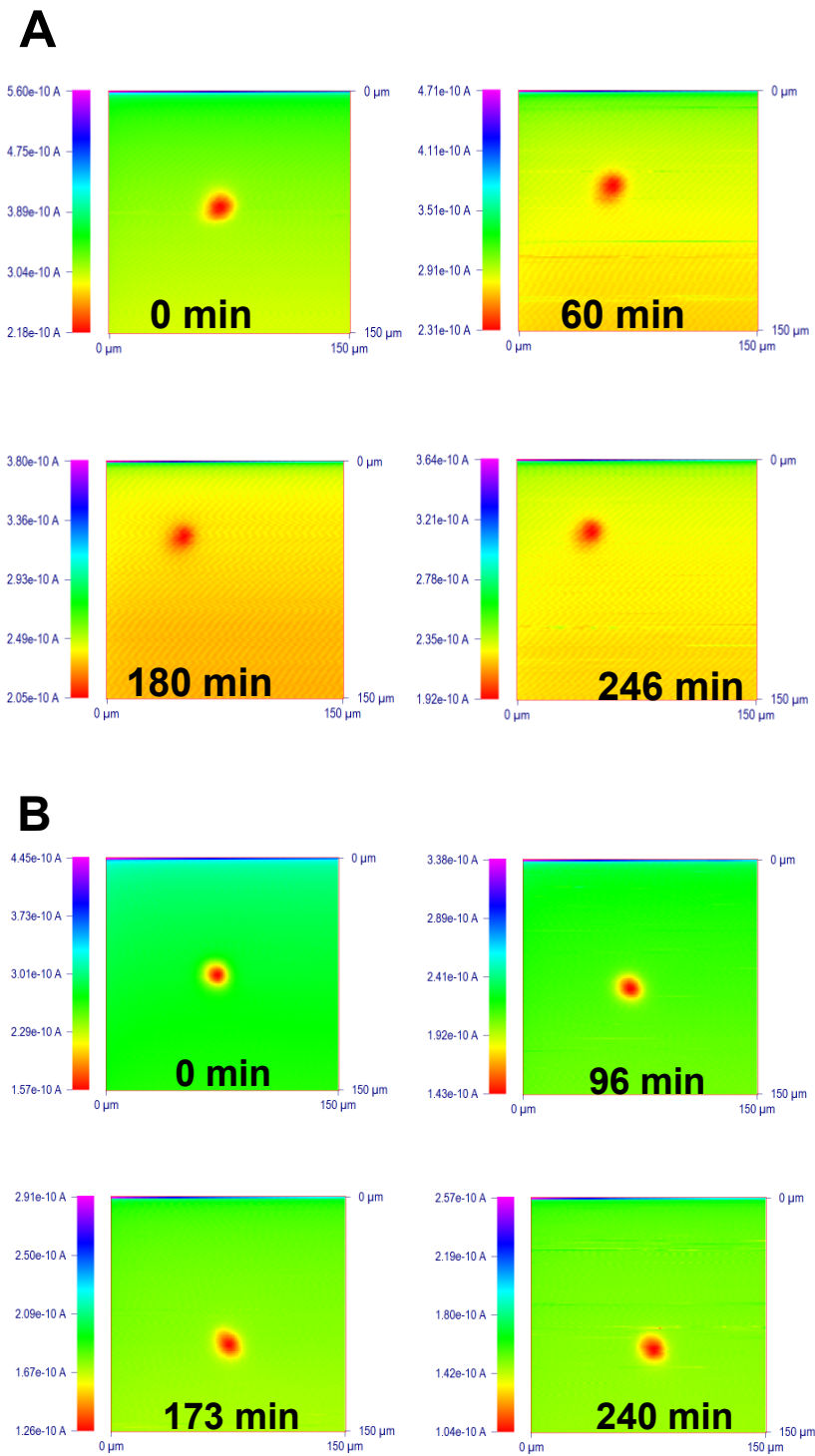
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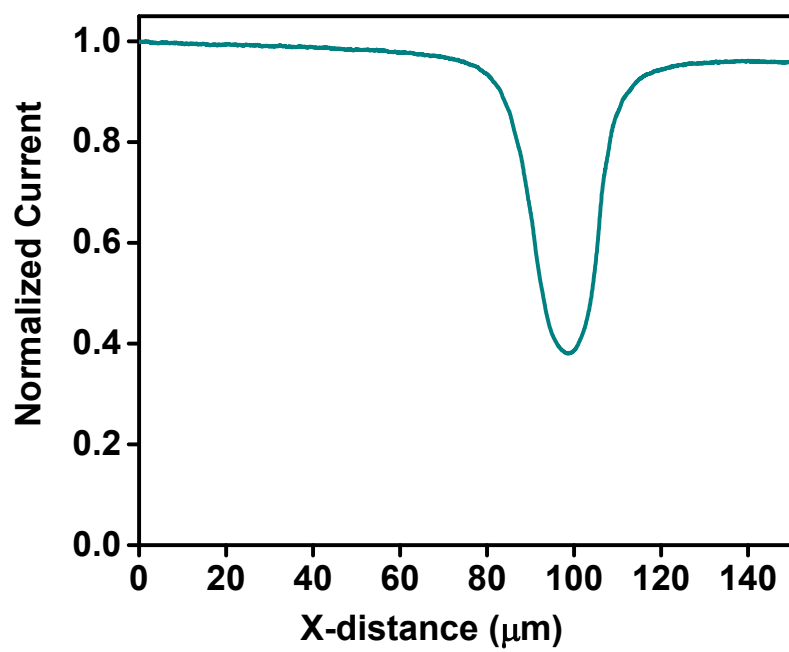
**Figure S1:** (A) Representative CV of a 10  $\mu\text{m}$  diameter graphite packed UME in a solution containing 1 mM ferrocene methanol and 0.1 M KCl. (B) Calibration of graphite-packed UME with Ferrocyanide addition.



**Figure S2:** SECM image of a single live cell. The image was taken using a 10 μm diameter Pt-UME.



**Figure S3:** Time-lapse SECM images of a (A) non-synchronized cell (B) serum-starved synchronized cell



**Figure S4:** Probe scan curve over a single cell. Tip-dish distance: 17 μm.

	<b>Number of Observations</b>	<b>Group mean (<math>\mu\text{m/s}</math>)</b>	<b>Average Distance</b>	<b>Within Cluster Sum of Squares</b>	<b>Maximum Distance</b>
Migrating	4	8.4	1.7	15.9	3.1
Stationary	4	3.2	1.4	7.8	1.7

**Table S1:** Classification of migrating and stationary cell speeds using k-means clustering. The observations are classified into clusters based on the nearest mean.

The first column is the designation of the two clusters as migrating and stationary. The second column is the number of observations in each cluster. The third column refers to the means of the clusters; the fourth column refers to the average distance of each observation from the mean of the cluster. The group mean of stationary cluster plus the maximum distance from the mean ( $3.2 + 1.7 = 4.9 \mu\text{m/s}$ ) was used to determine the threshold limit as the speed of  $5 \mu\text{m/s}$ , above which the cell speeds were classified as migrating.