(a) The Nyquist plot shows the impedance spectra with different cycles. 200th cycle data is highlighted.

(b) CV curves for various scan rates: 0.1 mV/s (black), 0.2 mV/s (red), 0.5 mV/s (blue), 0.8 mV/s (cyan), and 1.0 mV/s (magenta).

(c) A log-log plot of current density (i) vs. scan rate (v) with the following slopes:
- Cathodic: $b_{\text{cathodic}} = 0.887$
- Anodic: $b_{\text{anodic}} = 0.758$

(d) Bar chart showing the capacitive contribution at different scan rates: 0.1 mV/s (48.1%), 0.2 mV/s (59.0%), 0.5 mV/s (69.7%), 0.8 mV/s (81.0%), and 1.0 mV/s (83.1%).