

SUPPLEMENTAL INFORMATION

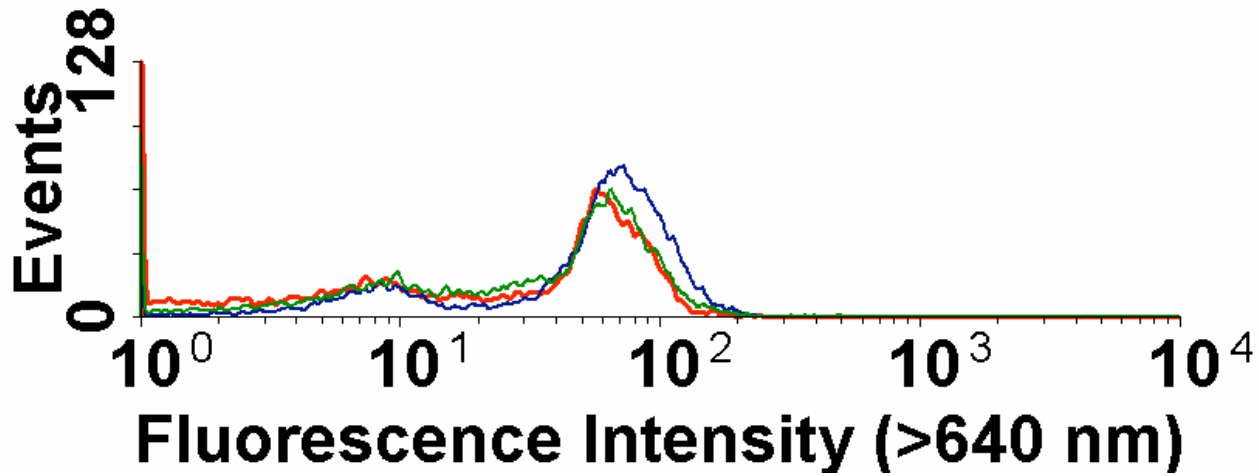


Figure S1: Histograms of red fluorescence intensities measured using flow cytometry for aerobic cultures of *S. oneidnesis* containing the empty plasmid stained with the dye DioC<sub>2</sub>(3). Cells starved of electron donor for 48 hours were diluted into medium containing 0 or 10 mM lactate and incubated for one hour either in the dark or the light. Starved cells incubated in the dark without lactate (green trace) had both a population of energized and de-energized cells. Cells incubated in the dark with lactate (blue trace) had an increase in the population of energized cells; cells incubated in the light without lactate (red trace) were similar to the starved cells.

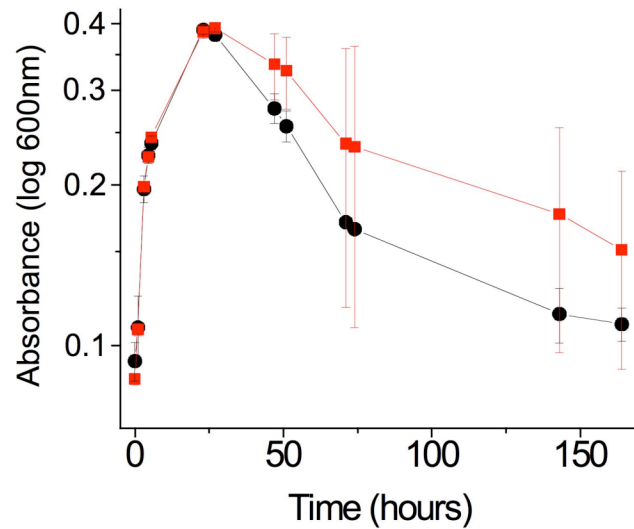


Figure S2: Cell growth was monitored by measuring the optical density at 600 nm for anaerobic cultures of *S. oneidensis* containing empty control plasmid in the light (red squares) or in the dark (black circles). Cultures were incubated anaerobically at 30 °C in minimal medium containing lactate, fumarate and retinal. Error bars are standard deviations from duplicate cultures.