

Supplementary Material (ESI) for Chemical Communications

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Electronic Supplementary Information (ESI)

Investigation of Laser induced Photocurrent Generation Experiments

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All reagents were purchased from Aldrich (Canada) and used as received. Milli-Q water (18 M Ω cm resistivity, Millipore Ltd.) was used to rinse the cell and to prepare solutions. Electrochemical measurements were carried out on a CHI 660B potentiostat using the standard 3-electrode setup. The working, counter and reference electrodes were polycrystalline gold electrode (diameter of 1.6 mm, BASi, IN, USA), Pt wire, and Ag/AgCl, respectively. Before the experiment, each solution was purged with argon for at least 20 minutes and kept under an argon atmosphere throughout the duration of the experiment. All the experiments were carried out at room temperature (22 °C). A BS73-10 OEM laser module (Intelite Inc., NV, USA): laser power 10 mW, wavelength 473 nm and beam diameter 1.5 mm, was used as the laser source.

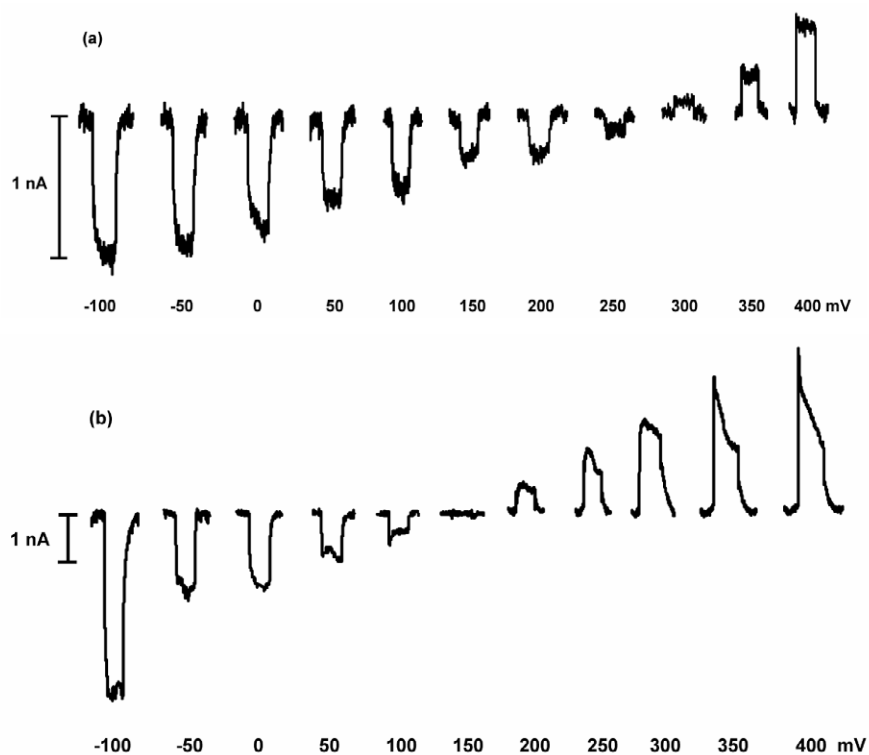


Fig. S1 Current responses from bare gold electrode in 0.1 M NaF aqueous solution (a), after the addition of 0.4 ml of 0.1 M NaCl aqueous solution to 1 ml of 0.1 M NaF aqueous solution (b).

Both peptides form well packed films on gold from trifluoroethanolic solutions, since cyclic voltammety measurements for the SAM-modified gold electrodes in a 4 mM ferricyanide/ferrocyanide in 2.0 M NaClO₄ aqueous solution showed negligible redox peak compared with a bare gold electrode.

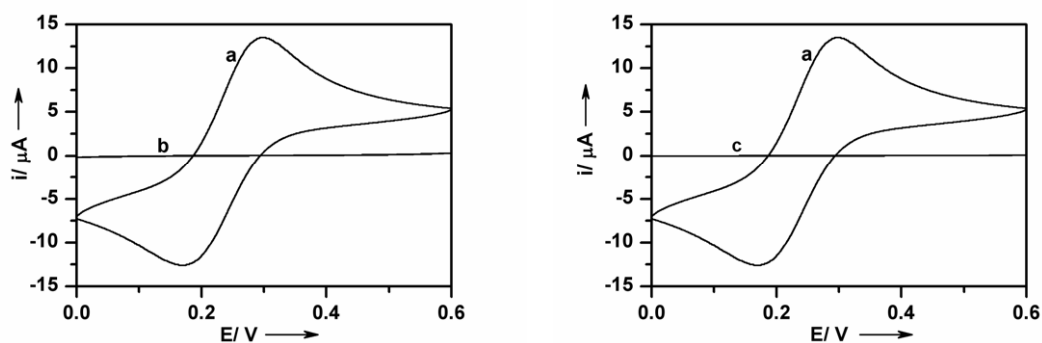


Fig. S2 Cyclic voltammograms of bare (a), **Ac18L** (b) and **18LAc** (c) modified gold electrodes in 4 mM ferricyanide/ferrocyanide in 2.0 M NaClO₄ at a scan rate of 0.1 V/s.