

**Supporting Information for**

**ELECTROCHEMICAL PROBING OF HIV ENZYMES USING FERROCENE-CONJUGATED PEPTIDES ON SURFACES**

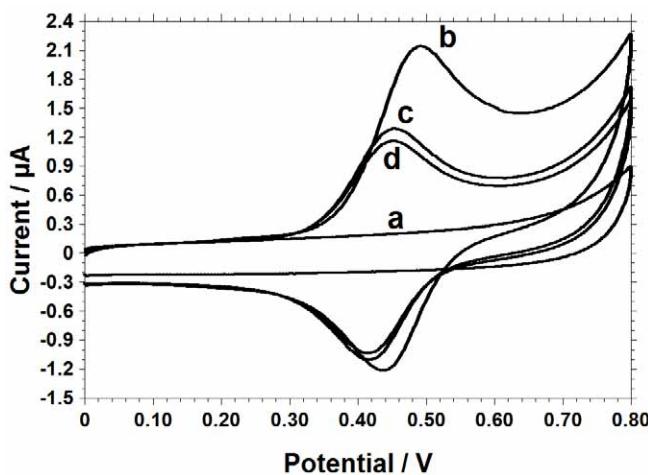
Kagan Kerman<sup>†</sup> & Heinz-Bernhard Kraatz\*

Department of Chemistry, The University of Western Ontario, 1265 Richmond Street, London,  
ON, N6A 5B7, Canada

<sup>†</sup> Present address: Department of Physical and Environmental Sciences, University of Toronto at Scarborough, 1265 Military Trail, Toronto, ON, M1C 1A4, Canada

\*Corresponding author: [hkraatz@uwo.ca](mailto:hkraatz@uwo.ca), Tel: +1-(519) 661-2166 ext. 81561

Fax: +1-(519) 661-3022



**Supporting Figure 1.** Cyclic voltammograms of Au microelectrodes during the modification stages, (a) bare Au microelectrode in blank 2 M NaClO<sub>4</sub> solution, (b) after the immobilization of Thc-Fc molecules on the surface, (c) after the attachment of peptide-IN with the surface-anchored Thc-Fc molecules, (d) after the quenching of active ester groups using 100 mM ethanalamine and the backfilling of empty spots on the surface using 1 mM hexanethiol. CVs were recorded at a scan rate of 100 mV s<sup>-1</sup> in 2 M NaClO<sub>4</sub> solution.

**Supporting Table 1.** Summary of the electrochemical properties of films of Thc-Fc-peptide conjugates on Au microelectrodes.\*

Layers	$E^\circ$ (mV)	$\Delta E$ (mV)	$\Gamma$ (mol.cm <sup>-2</sup> )
Thc-Fc	480 ( $\pm 25$ )	89 ( $\pm 10$ )	$3.5 \times 10^{-11}$
Peptide	455 ( $\pm 15$ )	67 ( $\pm 15$ )	$1.7 \times 10^{-11}$
Ethanolamine	420 ( $\pm 10$ )	40 ( $\pm 15$ )	$1.1 \times 10^{-11}$
Hexanethiol	420 ( $\pm 10$ )	45 ( $\pm 15$ )	$0.9 \times 10^{-11}$

\*Surface concentrations  $\Gamma$  are calculated in mol.cm<sup>-2</sup> with supporting electrolyte 2 M NaClO<sub>4</sub> at pH 7, Ag/AgCl reference electrode, Au working microelectrode and Pt wire counter electrode and other conditions are as described in Supporting Fig. 1 and in the Experimental Section.