

Electrical Supplementary Information

Table S1. Second-order rate constants for the oxidation of ferrocyt *c* by Ru^{III} complexes.

$[\text{Ru}^{\text{III}}(\text{L})(\text{bpy})]^0$	$k / 10^5$ [M ⁻¹ s ⁻¹]
(<i>S</i>)-bcmpa	5.53(4)
(<i>R</i>)-bcmpa	3.15(2)
(<i>S</i>)-bcmal	2.48(2)
(<i>R</i>)-bcmal	2.49(2)

L = (*S*)-/(*R*)-BCMPA; *N,N*-Bis(carboxymethyl) (*S*)-/(*R*)-phenylalanine,
(*S*)-/(*R*)-BCMAL; *N,N*-Bis(carboxymethyl) (*S*)-/(*R*)-alanine
bpy = 2,2'-bipyridine

stopped-flow measurement condition:

Concentration ratio: [cyt *c*] / [Ru^{III}] > 50,

Solvent: 1 mM phosphate buffer (pH 6.0, I = 0.05 M (KCl))

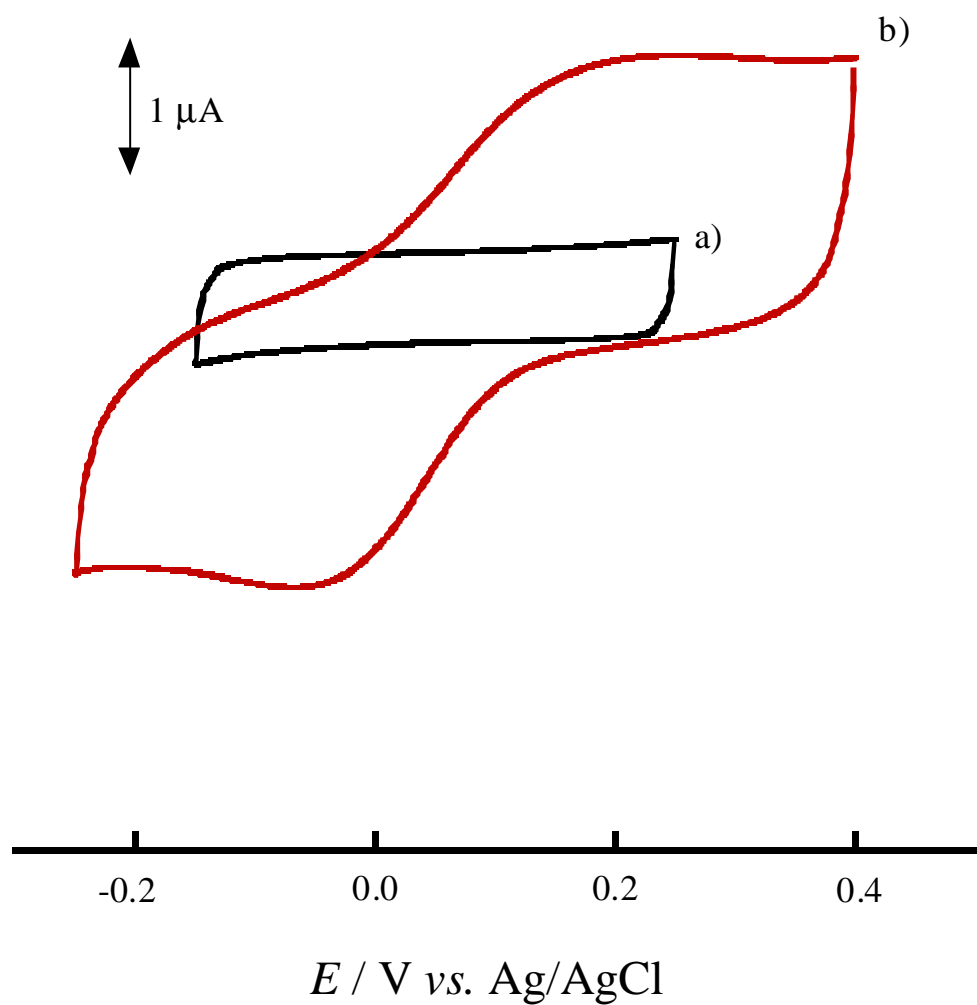


Fig. S1 Cyclic voltammograms in a) buffer solution (black) and b) *cyt c* solution (red), as measured with 3S-Au