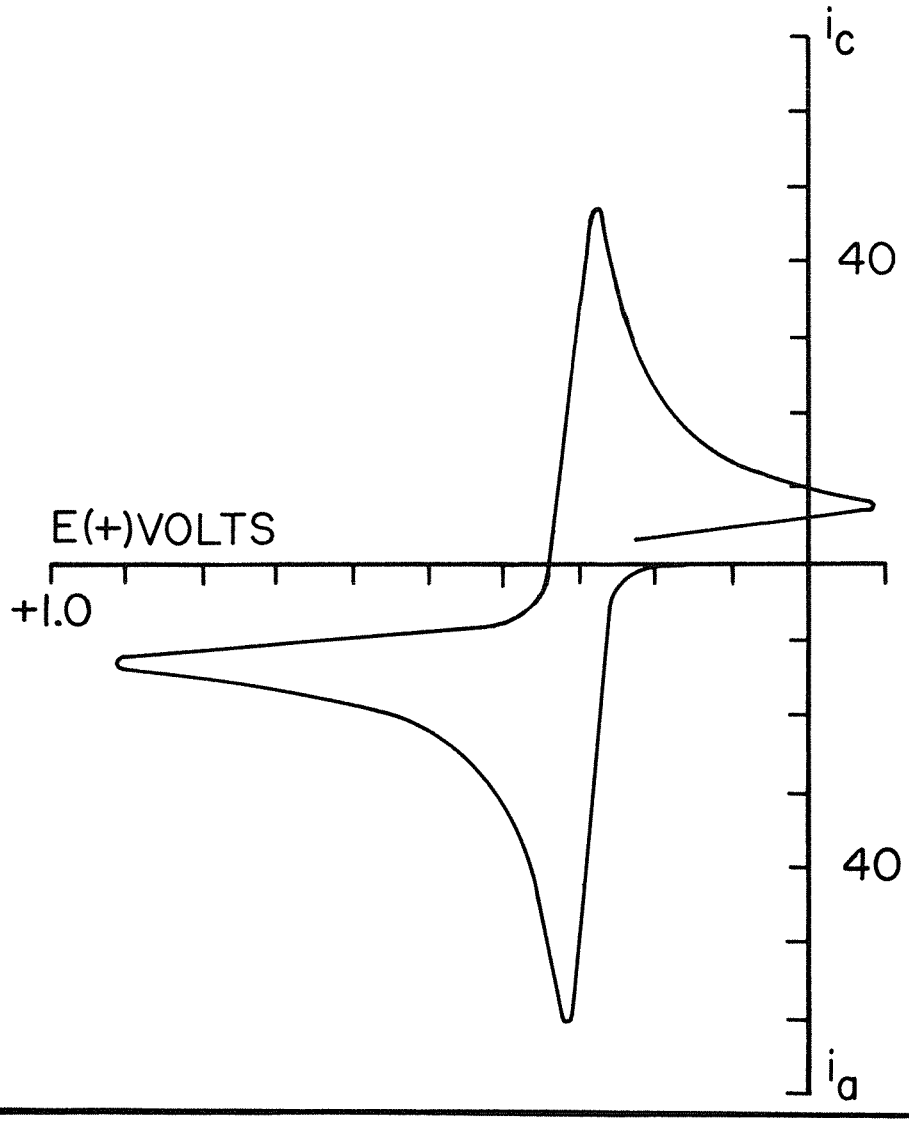
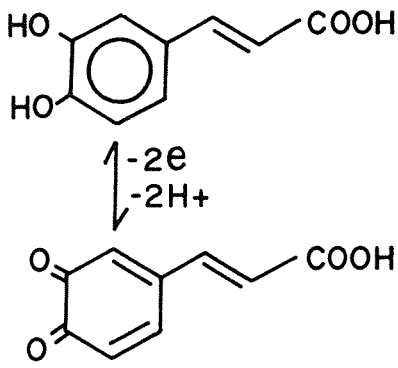
CV NOTES

CAFFEIC ACID





SAMPLE:	caffeic acid
MEDIUM:	1 M acetate buffer, pH 4.6
CONC:	1 mM
RATE:	300 mV/s
ETRODE:	CPE
REF:	RE-1, Ag/AgCl
MODEL:	CV-1A

Caffeic acid is unique among catechol natural products. The double bond conjugated with the ring lowers the oxidation potential and enhances the heterogeneous electron transfer rate. Contrast this beautiful voltammogram with the less ideal behavior of catechin or epinephrine. Chlorogenic acid (the quinic acid ester of caffeic acid) also exhibits a nearly ideal voltammogram. Both molecules are candidates for very selective LCEC due to their ease of oxidation.

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