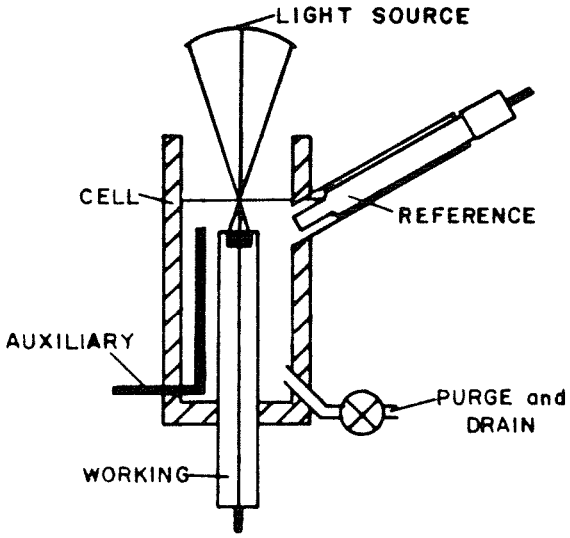
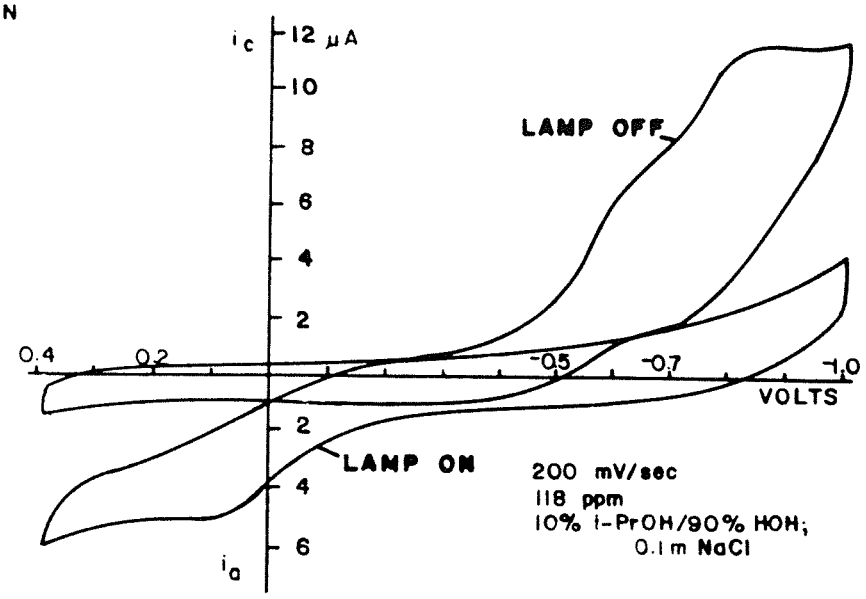
# CV NOTES

## Benzophenone Photo-Electrochemistry




***Sample:*** Benzophenone

***Medium:*** 10% i-PrOH/90% HOH; 0.1 M NaCl

***Conc:*** 0.65 mM

***Rate:*** 200 mV/sec

***Etrode:*** Glassy Carbon

***Ref:*** RE-1, Ag/AgCl

***Model:*** CV-1B

Benzophenone is a typical aromatic carbonyl, which is known to undergo photoreduction in protic solvents to produce ketyl radical and ketyl radical anion intermediates and benzopinacol as the major photoproduct. Using the photocyclic voltammetric cell shown above, the anodic photocurrent can be attributed to the unresolved oxidation current of the ketyl radical and ketyl radical anion anodic from -1.2 volt and the oxidation wave of benzopinacol starting at -0.2 volt. Benzophenone will undergo reduction cathodic from -1.4 volt. Photocyclic voltammetry is useful for screening compounds for photoelectrochemical activity.

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