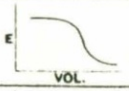
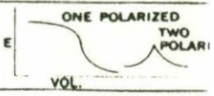
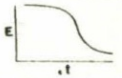
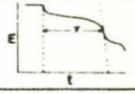
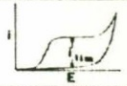
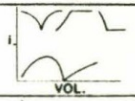
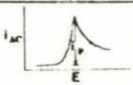
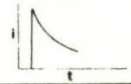
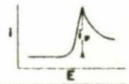
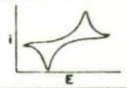
SUMMARY OF ELECTROANALYTICAL METHODS

	PARAMETER CONTROLLED	VARIABLE MEASURED	MASS TRANSPORT RATE	ANALYTICAL SIGNIFICANCE	TYPICAL TRACE
CONTROLLED CURRENT METHODS					
Potentiometry	Zero i	E	Incidental	$E = E^{o} + \frac{RT}{nF} \ln \frac{a_{Ox}}{a_{Red}}$	Meter or recorder deflection
Potentiometric Titration	Zero i and titrant addition	E vs Vol.	Fast (stirred solution)	Vol. α C_b	
Potentiometric Titration (one or two polarized electrodes)	Constant i and titrant addition	E vs Vol.	Fast (stirred solution)	Vol. α C_b	
Controlled Current Coulometric Titration, with Potentiometric Indication	Constant i to produce titrant from appropriate solvent	E vs t, where t equiv. to titrant	Fast (stirred solution)	$Q = i \triangle t \alpha C_b$	
Chronopotentiometry	Constant i	E vs t	Slow (diffusion controlled)	$\tau^{1/2} \alpha C_b$	
Constant-Current Electrogravimetry	Constant i	Weight of Deposit	Fast (stirred solution)	Wt α C_b (Vol.)	None
CONTROLLED POTENTIAL METHODS					
Polarography	Constant E or Linear Sweep E	i vs E	Controlled by diffusion and DME	$i_d \alpha C_b$	
Voltammetry	Constant E or Linear Sweep E	i vs E	Fast (rotating electrode)	$i_{lim} \alpha C_b$	
Amperometric Titration (one or two polarized electrodes)	Constant E and titrant addition	i vs Vol.	Fast (stirred solution)	Vol. α C_b	
A.C. Polarography	Linear Sweep E + Sinusoidal E (small amplitude)	i_{AC} vs E_{sweep}	Controlled by diffusion and DME	$i_p \alpha C_b$	
Chronoamperometry	Constant E	i vs t	Slow (diffusion controlled)	$i_t \alpha C_b$	
Potential Sweep Chronoamperometry	Linear Sweep E	i vs E	Slow (diffusion controlled)	$i_p \alpha C_b$	
Cyclic Voltammetry	Triangular Sweep E	i vs E	Slow (diffusion controlled)		
Controlled E Electrogravimetry	Constant E	Weight of Deposit	Fast (stirred solution)	Wt α C_b (Vol.)	None
Controlled E Coulometry	Constant E	i vs t	Fast (stirred solution)	$Q = \int_0^t i\,dt \alpha C_b$ (Vol.)