

Electrochemistry— Master Materials Guide



Materials listed below are recommended
for a class of 30 students working in pairs.

Experiments and Demonstrations

Chemicals	Flinn Scientific Catalog No.	Introduction to Electrochemistry	Measuring Cell Potentials	Quantitative Electrochemistry	Electrolysis Reactions	Microscale Electrolysis	Hoffman Electrolysis	The Tin Man	Orange Juice Clock	Basic Electrophoresis	Lennox Battery Contest
Agarose, electrophoresis grade	A0132									1 g	
Bromthymol blue solution, 0.04%	B0173	50 mL						15 mL			
Buffer envelopes, pH 10	B0120									1	
Copper strips	C0182		15 cm	30							
Copper wire, 18-gauge	C0148							2 cm			
Copper(II) bromide	C0210				9 g						
Copper(II) sulfate solution, 1 M	C0246	15 mL	1.5 L								
Hydrochloric acid solution, 1 M	H0013							100 mL			
Hydrochloric acid solution, 0.1 M	H0014							10 mL			
Iron strips	I0058	15 cm									
Iron(II) sulfate heptahydrate	F0016	14 g									
Isopropyl alcohol	I0020			600 mL							
Magnesium ribbon	M0139	15 cm									30 cm
Magnesium sulfate heptahydrate	M0016	13 g									
Methylene blue	M0072										1 g
Phenolphthalein solution, 0.5%	P0115				15 mL						
Phenol red	P0097									1 g	
Potassium iodide solution, 0.5 M	P0171				150 mL						
Sandpaper	S0165	1									1
Silver foil	S0270	15 cm									
Silver nitrate solution, 1 M	S0304	15 mL									
Sodium chloride solution, 0.5 M	S0348				150 mL						
Sodium hydroxide solution, 0.1 M	S0149							10 mL			
Sodium nitrate	S0281	5 g									
Sodium sulfate solution, saturated	S0373							200 mL			
Sodium sulfate solution, 1 M	S0352										
Sodium sulfate solution, 0.5 M	S0353	500 mL									
Sodium thiosulfate, pentahydrate	S0114				372 g						
Starch solution, 0.5%	S0151				15 mL						
Steel wool	S0128			1							
Sucrose	S0134									50 g	
Sulfuric acid solution, 1 M	S0202				250 mL			200 mL			
Tin strips	T0087										1

Continued on next page

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Chemicals, continued											
Tin(II) chloride	S0227							23 g			
Zinc strips	Z0024		15 cm								
Zinc sulfate solution, 1 M	Z0031		15 mL								
Glassware											
Beakers											
50-mL	GP1005	15									
100-mL	GP1015			15							
250-mL	GP1020									1	
400-mL	GP1025			6			1				
600-mL	GP1030					2					
1-L	GP1040				1						
Graduated cylinder, 10-mL	GP2005						1				
Petri dishes	GP3019		15								
Stirring rod	GP5075				15					1	
Test tubes, 15 × 125 mm	GP6015						2				
U-shaped tube	AP1120	15									
General Equipment and Miscellaneous											
Alligator cords	AP6052			45			3				4
Ammeter (0-1A)	AP9045			15			1				
Balance, centigram (0.01-g precision)	OB2059			3							
Barometer	AP5070						optional				
Batteries, 9-V	AP1430	15			15	1		1			
Batteries, 6-V	AP1429						1				
Batteries, size D	AP1425			60							
Battery cap with alligator clip leads	AP8954	15			15	1		1			
Battery pack	AP5621			15							
Bunsen burner	AP5344						1				
Clamp, buret	AP1034	30									
Copper wire, insulated	AP4716					22 cm					
Dual electrophoresis apparatus	FB1714									1	
Dual power pack	FB0316									1	
Electrical tape	AP6011					1					

Continued on next page

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General Equipment and Miscellaneous, continued											
Electrochemical Clock Kit	AP8718								1		
Filter paper, 9 cm	AP3102		15								
Forceps, 4 inch	AP8328		15	15							
Hoffman Apparatus	AP5439						1				
Hot plate	AP4674									1	
LabPro™ Interface System	TC1500		15								optional
Latex tubing, 1/8" I.D.	AP2076						4 cm				
Logger Pro software	TC1421		1								optional
Metal electrode set	AP4602										1
Micro pipet, digital	AP1804									1	
Micro pipet tips, small	AP1807									3	
Multimeter —or— Voltage Probe	AP4639 TC1506		15								1
Pencil leads, 0.9-mm	AP1817	30			30	1					
Petri dishes, disposable, 15 × 100 mm	AB1470							1			
Petri dishes, disposable, 3 partitions	AB1472				15						
Piezoelectric igniter	AP6609					1					
Pipets, Beral-type, graduated	AP1721	15	90		45		1				
Pipets, Beral-type, extra large bulb	AP1720					7					
Pipets, Beral-type, super jumbo	AP8850					1					
Power supply, low voltage, DC	AP9279						optional				
Scissors, heavy duty	AP8949			1							
Scissors, student	AP5394		15								
Support stand	AP8226	15									
Syringes, 10-mL	AP1730						2				
Test tube rack	AP1677					1					
Thermometer, digital	AP8716						1			1	
Timer	AP8843			15							
Wash bottle	AP1668		15	15	15						
Water, distilled or deionized	W0007 W0001	✓	✓	✓							
Wax pencils	AP8291			15							
Wooden splints	AP4455					1					