

Organic Laboratory Techniques

Organic chemistry requires a number of skills and techniques which are different from those you learned in inorganic chemistry. To avoid having to give detailed instructions for these techniques in each lab, I have compiled separate instructions for them. The table below lists which techniques are needed in each experiment; they will also be given in the introduction for each lab so that you can review the information as necessary. Your success in the lab will require not only that you know how to perform these techniques, but why and how they work.

	Measuring chemicals	Refluxing a reaction	Measuring a boiling point	Extracting and washing	Drying a solution	Evaporating a solution	Water sensitive reactions	Filtering off a solid	Distillation	Recrystallization	Melting point	TLC	Column chromatography	IR
Physical Properties	X	X	X								X			
IR Spectroscopy														X
TLC of Pain medications	X											X		
Column Chromatography	X					X						X	X	
Isolation of cinnamaldehyde	X			X	X	X			X					
Nucleophilic substitution	X													
Williamson ether synthesis	X	X		X	X	X						X	X	X
Addition of HBr to cyclohexane	X	X		X	X	X								X
Hydroboration Oxidation	X	X		X	X	X	X							X
Diels-Alder reaction	X	X					X	X			X			
Friedel Crafts Acylation	X			X	X	X	X				X	X	X	
Addition of a Grignard	X			X	X	X	X				X	X		
Wittig Reaction	X	X		X	X	X				X	X	X		
Esterification Reaction	X	X	X	X	X		X		X					X
Aldol Condensation	X							X		X	X	X		
Identifying Unknowns	X		X								X			X

