

BIODIESEL ANALYSIS WORKSHEET

Use the methods presented in the lecture to measure the following quantities. Get together with someone who measured a different oil than you and obtain their oil and biodiesel data so that you may compare your oil to theirs. After measuring all quantities answer the questions on the back.

Measurements:

	Density				
	Volume Measured (ml)	Mass of Container with Sample	Mass of Container	Sample Mass (g)	Calculated Density (g/ml)
Diesel					
Vegetable Oil					
Vegetable Biodiesel					
Canola Oil					
Canola Biodiesel					

	Qualitative Relative Viscosity	
	Time (s)	
Diesel		
Vegetable Oil		
Vegetable Biodiesel		
Canola Oil		
Canola Biodiesel		

	Flame Test			
	Burn Time (s)	Mass loss during Burn Time (g)	Calculated Burn rate (g/s)	Maximum Flame Temperature (°C)
Diesel				
Vegetable Oil				
Veg. Biodiesel				
Canola Oil				
Canola Biodiesel				

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1. What are the differences between the different resulting biodiesels?
2. Compare the general differences between a single biodiesel, its starting oil, and traditional diesel.
3. According to the data gathered how closely will the biodiesel products behave to traditional diesel when used in an engine? Which of the two biodiesels would work best in an engine?