

Plant Pigment Chromatography Worksheet

Observations and Analysis

Spinach

Band	Distance (mm)	Band Color	R _f	Pigment name
Solvent front		—	—	—
1				
2				
3				
4				
5				

Blue-green algae

Band	Distance (mm)	Band Color	R _f	Pigment name
Solvent front		—	—	—
1				
2				
3				
4				
5				

Post-Lab Questions

1. Compare and contrast the pigments observed on the spinach TLC plate with the pigments on the blue-green algae TLC plate.
2. What factors are involved in the separation of the pigments?
3. Refer to step 8 in the *Procedure*: Why was it necessary to keep the chromatography solvent level in the beakers below the sample extracts spotted on the TLC plates?
4. Which pigment directly captures light energy? What are the roles of the other pigments?