

Project 2.2 Notebook Guidelines

Results: Record the melting point of purified ether extract, the melting point of purified hydroxide extract, the identity of the compound used in mixed m.p. of ether extract, the mixed melting point of ether extract, the identity of the compound used in mixed m.p. of hydroxide extract, and the mixed melting point of hydroxide extract

Draw a picture of TLC plate:

Give the R_f value(s) of compound(s) in ether extract (show calculations)

Give the R_f value(s) of compound(s) in hydroxide extract (show calculations)

Include a table of characteristic peaks for ether extract:

Position (cm^{-1})	Intensity	Description	Assignment

Include a table of characteristic peaks for hydroxide extract:

Position (cm^{-1})	Intensity	Description	Assignment

Discussion:

1. What does each of these tests tell you about the identity of the ether extract?

Melting point, Mixed melting point, TLC, R_f , IR

Classify the above tests from very helpful to not helpful in determining the identity of the ether extract. Do any tests give conflicting evidence? Based on these data, what is the identity of the ether extract?

2. What does each of these tests tell you about the identity of the hydroxide extract?

Melting point, Mixed melting point, TLC, R_f , IR

Classify the above tests from very helpful to not helpful in determining the identity of the ether extract. Do any tests give conflicting evidence? Based on these data, what is the identity of the hydroxide extract?

3. What does each of these tests tell you about the purity of the ether extract?

Melting point, Mixed melting point, TLC, R_f , IR

Classify the above tests from very helpful to not helpful in determining the identity of the ether extract. Do any tests give conflicting evidence? Based on these data, how pure is the ether extract?

4. What does each of these tests tell you about the purity of the hydroxide extract?

Melting point, Mixed melting point, TLC, R_f , IR

Classify the above tests from very helpful to not helpful in determining the identity of the ether extract. Do any tests give conflicting evidence? Based on these data, how pure is the hydroxide extract?