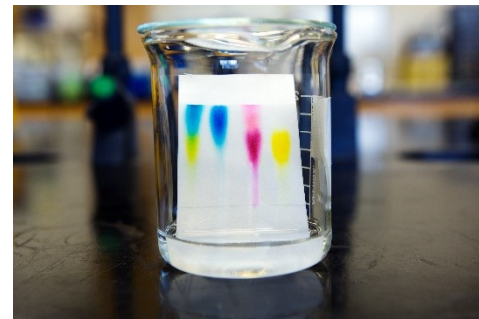




## App quantifies chemicals in thin-layer chromatography

Read the full article at: [rsc.li/2TOMCid](https://rsc.li/2TOMCid)

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TLC separates compound mixtures on a sheet covered with an adsorbent material through the action of a solvent. Common classroom examples use TLC to separate the components in black ink or leaf extracts. But until now, TLC has been limited to qualitative analyses – it can show how many different compounds a mixture contains, but not how much of each component there is.

Users of the app place three samples of known concentration next to one of unknown concentration on their TLC plate and run it. When a photograph of the TLC plate is then uploaded to the app, it compares the size and intensity of the spots to estimate the concentration of compounds in the unknown sample.

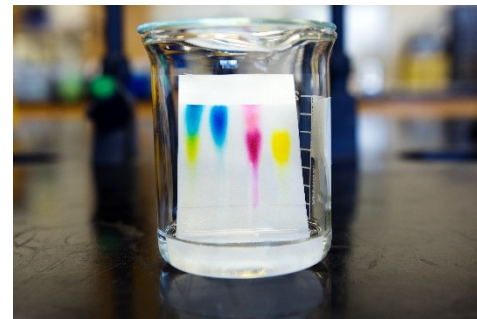




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1. What is a pure substance?
2. What is the stationary phase in TLC?
3. Describe how to calculate the  $R_f$  value for a spot on a chromatogram.
4. Explain why two different compounds may move different distances on a chromatogram.