

Designing Safer Solvents to Replace Methylene Chloride for Chromatography Applications Using Thin-Layer Chromatography as a Screening Tool

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Section 1 Dissolution Testing

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Section 1 Dissolution Testing

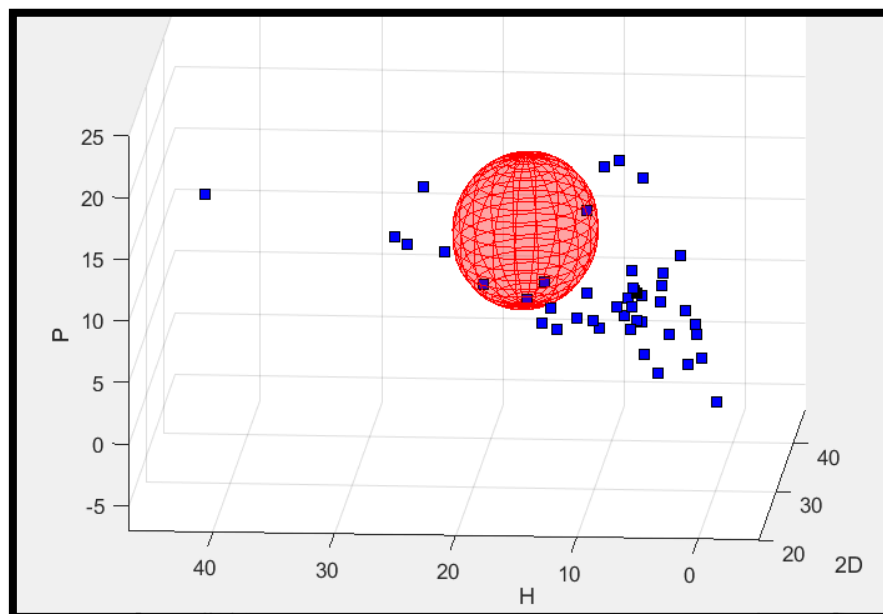


Figure S1. Sphere showing good and bad solvents for acetaminophen, 2 min.

(Note that bad solvents lie outside the sphere, good solvents lie inside the sphere).

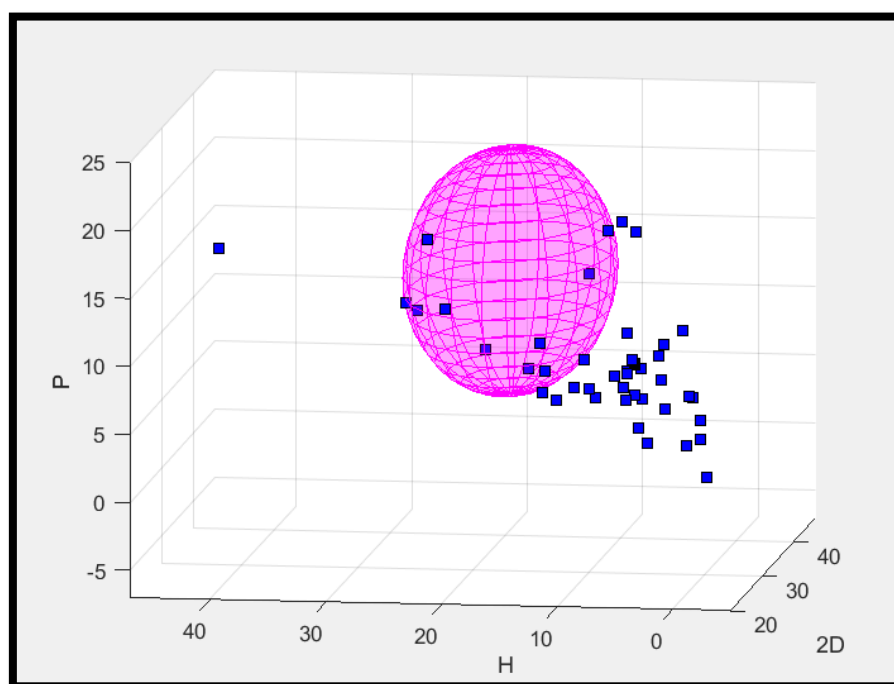


Figure S2. Sphere showing good and bad solvents for aspirin, 2 min.

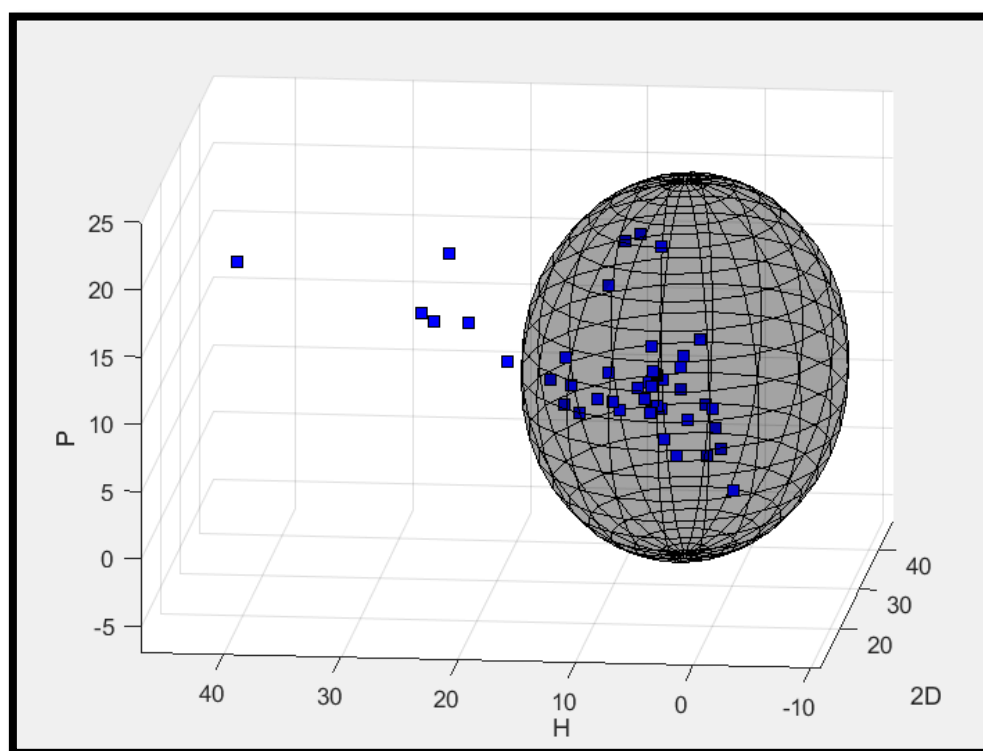


Figure S3. Sphere showing good and bad solvents for ibuprofen, 2 min.

Table S1. Fit, D, P, and H values of APIs in different time intervals.

API	Dissolution Time	Fit	D, P and H values
acetaminophen	2 min	0.8	D= 16, P=13, H=16
	10 min	0.4	D= 16, P=13, H=13
	30 min	0.2	D= 17, P=11, H=12
aspirin	2 min	0.7	D= 19, P=13, H=19
	10 min	0.6	D= 21, P=13, H=16
	30 min	0.7	D= 20, P=10, H=17
ibuprofen	2 min	0.3	D= 12, P=11, H=3
	10 min	0.4	D= 22, P=11, H=12
	30 min	0.5	D= 13, P=3, H=13

Section 2 Separation of Caffeine and Acetaminophen Using TLC Plates

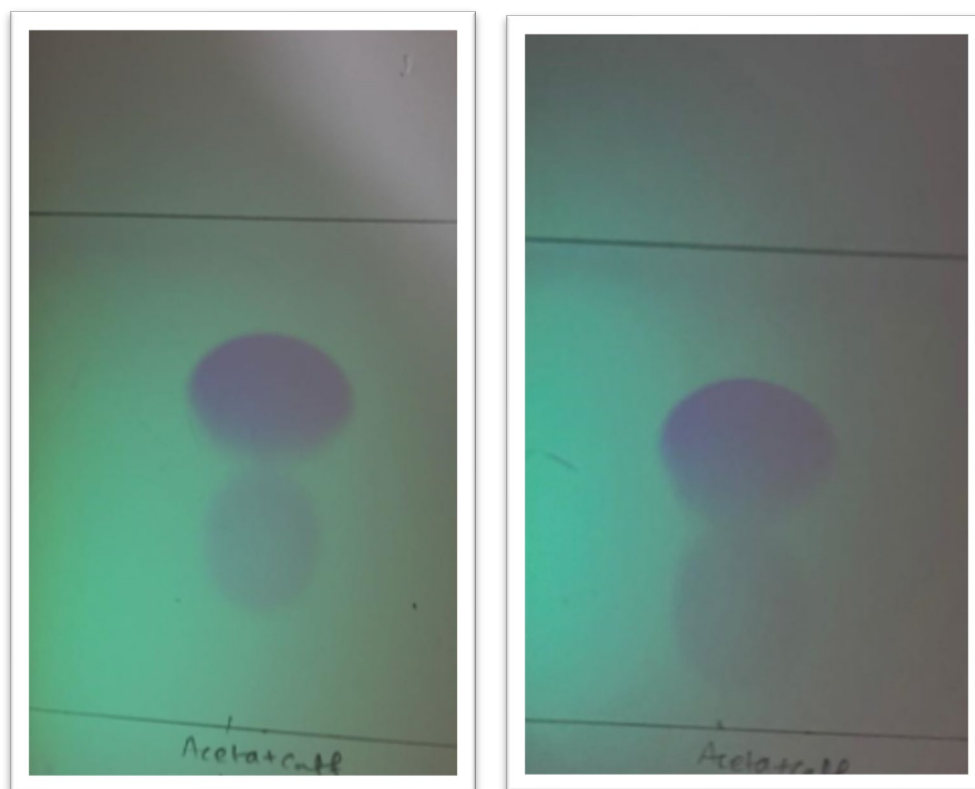


Figure S4. Acetaminophen and Caffeine spotted on the TLC plate with (left) Ethyl Acetate and Acetone, and (right) Ethyl Acetate as mobile phase under a UV lamp.