

Research Article

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Simultaneous determination of lesinurad and febuxostat in commercial fixed-dose combinations using a greener normal-phase HPTLC method

Supplementary material

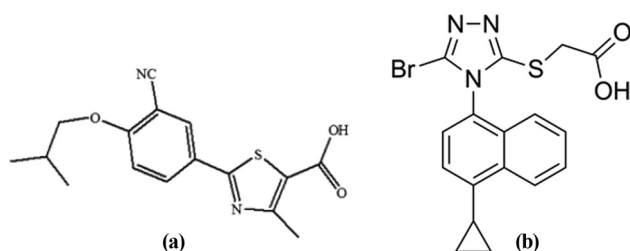


Figure S1: Chemical structures of FBX (a) and LND (b).

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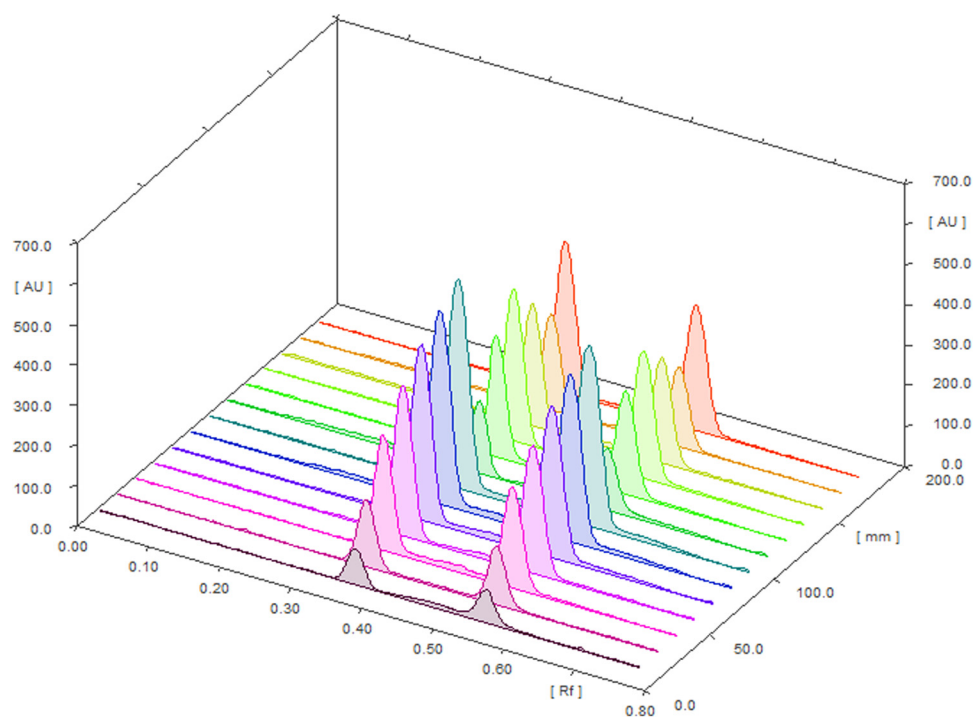


Figure S2: 3D chromatograms of standard LND and FBX and formulations.

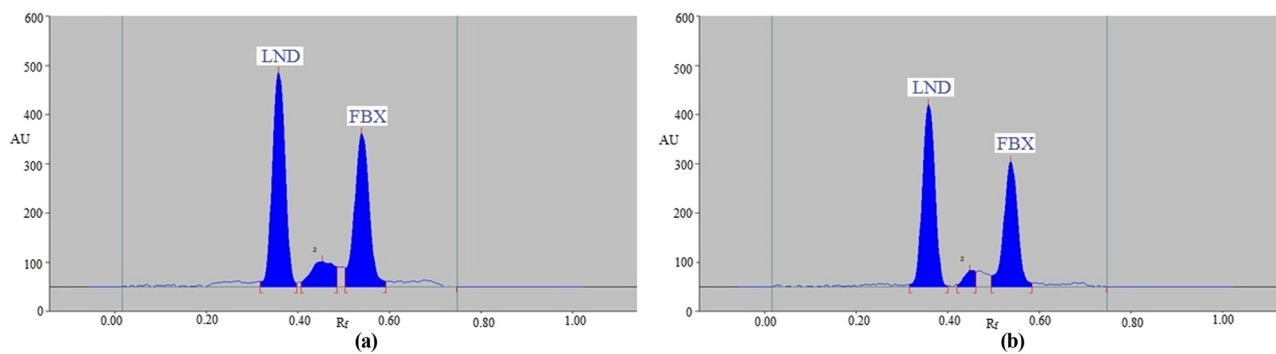


Figure S3: Representative chromatogram of LND ($R_f = 0.35$) and FBX ($R_f = 0.54$) in (a) FDA-approved fixed-dose combination a and (b) FDA-approved fixed-dose combination b.

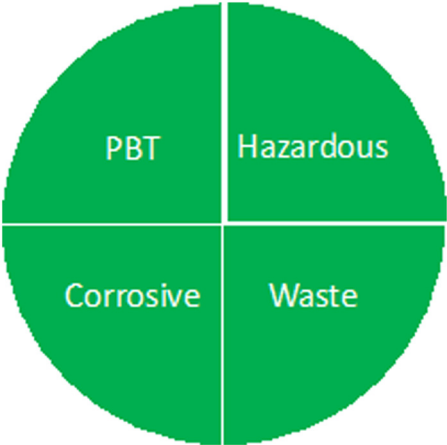


Figure S4: NEMI evaluation of greenness for the current methodology.

Table S1: Accuracy results of LND and FBX for the current approach (mean $\pm$ SD; $n = 6$)

Conc. (ng/band)	Conc. found (ng/band) $\pm$ SD	Recovery (%)	CV (%)
LND			
150	151.18 $\pm$ 1.57	100.7	1.0
200	202.31 $\pm$ 1.82	101.1	0.9
250	248.76 $\pm$ 2.11	99.5	0.8
FBX			
150	152.25 $\pm$ 1.70	101.5	1.1
200	199.13 $\pm$ 1.94	99.5	0.9
250	251.78 $\pm$ 2.24	100.7	0.9

CV: coefficient of variance.

Table S2: Robustness measurement results of LND and FBX for the current technique (mean $\pm$ SD; $n = 6$)

Conc. (ng/band)	Mobile phase composition (EA-EtOH-H ₂ O)			Results		
	Original	Used		(ng/band) ± SD	% CV	R _f
LND						
200	70:20:10	72:18:10	+2.0	194.31 ± 1.59	0.8	0.33
		70:20:10	0.0	197.81 ± 1.71	0.8	0.35
		68:22:10	−2.0	204.51 ± 1.84	0.9	0.37
FBX						
200	70:20:10	72:18:10	+2.0	195.38 ± 1.64	0.8	0.53
		70:20:10	0.0	198.79 ± 1.81	0.9	0.54
		68:22:10	−2.0	205.38 ± 1.91	0.9	0.55

R_f : retardation factor.