

## Optimization of HPTLC densitometric method for curcuminoids and polyphenolics in an ayurvedic *Emblica officinalis* and *Curcuma longa* based Nishamalaki formulation by Box-Behnken design

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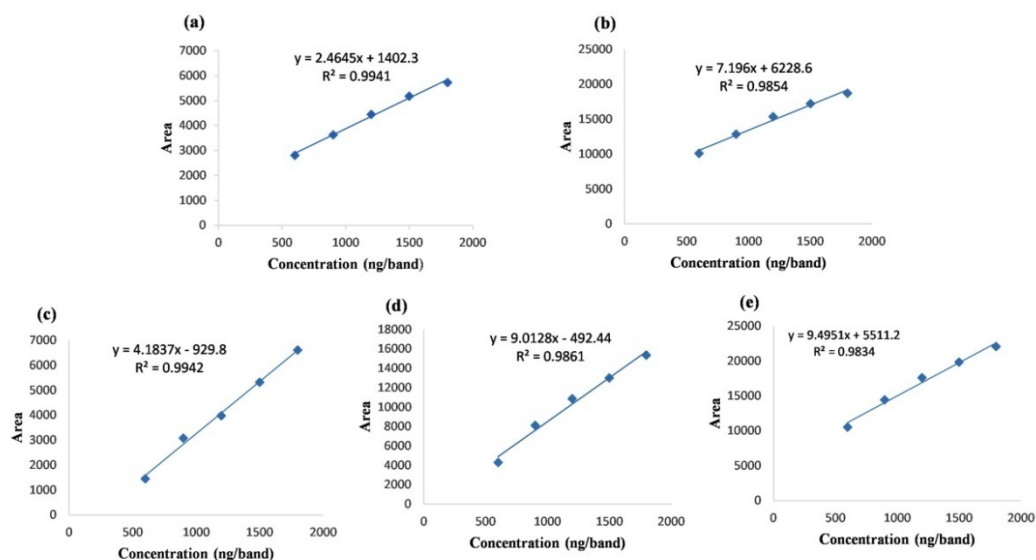
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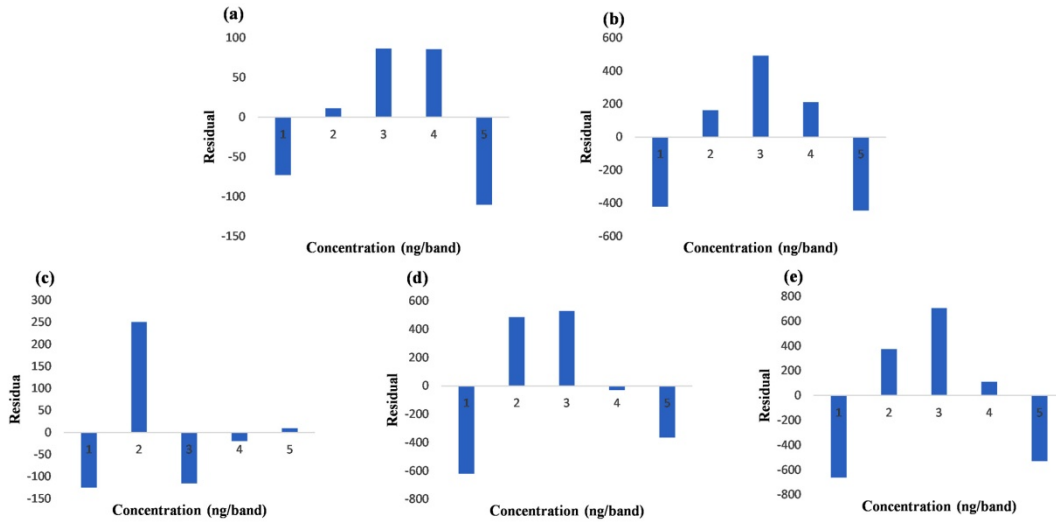
### Supplementary Data

Supplementary Table S1 — Predicted response models and statistical parameters obtained by ANOVA

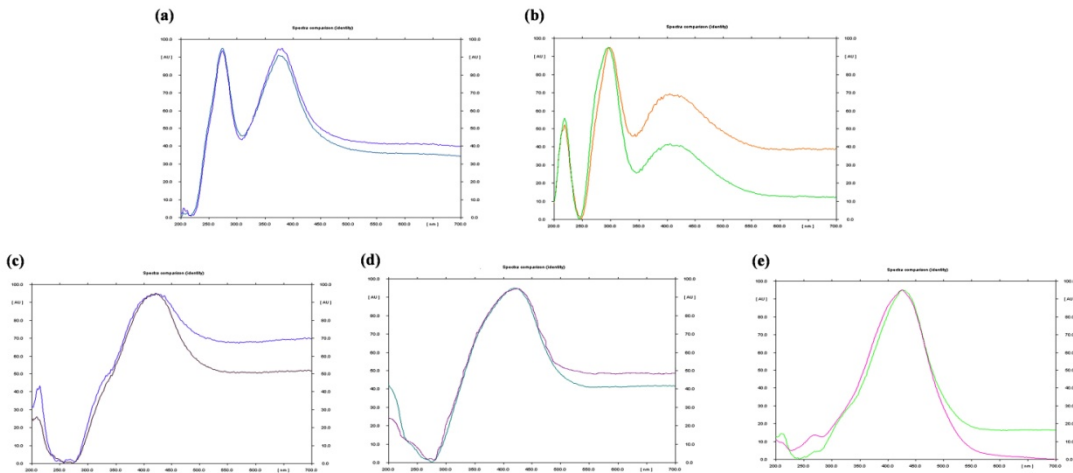
Response	Polynomial equation	Model	Model p-value	PRESS	Standard deviation
R <sub>F</sub> of EA	+0.1360 * A + 0.0162 * B + 0.0212 * C - 0.0050 * AB + 0.0125 * AC - 0.0100 * BC + 0.0000 * A <sup>2</sup> - 0.0268 * B <sup>2</sup> + 0.00033 * C <sup>2</sup> - 0.0043	Quadratic	0.12	0.025	0.016
R <sub>F</sub> of GA	+0.02480 * A + 0.0350 * B + 0.0087 * C - 0.0063 * AB + 0.0050 * A <sup>2</sup> - 0.0302 * B <sup>2</sup> + 0.0023 * C <sup>2</sup> + 0.0072	Linear	0.24	0.024	0.023
R <sub>F</sub> of BDMC	+0.5780 * A + 0.0263 * B - 0.0025 * C + 0.0013 * AC - 0.0325 * BC + 0.0050 * A <sup>2</sup> - 0.0528 * B <sup>2</sup> - 0.0253 * C <sup>2</sup> + 0.0573	Quadratic	0.56	0.053	0.036
R <sub>F</sub> of DMC	+0.7040 * A + 0.0250 * B - 0.0050 * C + 0.0250 * AB + 0.0150 * AC - 0.0600 * BC + 0.0200 * A <sup>2</sup> - 0.0495 * B <sup>2</sup> - 0.0195 * C <sup>2</sup> + 0.0355	Quadratic	0.68	0.021	0.034
R <sub>F</sub> of CUR	+0.8300 * A + 0.0363 * B - 0.0112 * C + 0.0325 * AC - 0.0650 * BC + 0.0250 * A <sup>2</sup> - 0.0338	Quadratic	0.81	0.035	0.046



Supplementary Fig. S1 — Calibration plot: EA, GA at 280 nm (a, b) and BDMC, DMC, CUR at 430 nm (c, d, e)



Supplementary Fig. S2 — Plot of residuals: EA, GA at 280 nm (a, b) and BDMC, DMC, CUR at 430 nm (c, d, e)



Supplementary Fig. S3 — Overlaid peak purity spectra of (a) EA, (b) GA, (c) BDMC, (d) DMC, (e) CUR standard with Nishamalaki formulation