

Hot Melt Extrusion for Improving the Physicochemical Properties of Polydatin Derived from *Polygoni cuspidati* Extract; A Solution Recommended for Buccal Applications

Supplementary material

Table S1. Mathematical models of release profiles of formulations F1-F4.

Formulation No.	Compression pressure	Mathematical model							
		Zero-order kinetic		First-order kinetic		Higuchi kinetic		Korsmeyer-Peppas kinetic	
		K	R ²	K	R ²	K	R ²	R ²	n
F1	1000N	18.04	0.92	0.67	0.60	18.86	0.87	0.95	0.64
	1500N	17.13	0.96	0.55	0.62	12.90	0.87	0.95	0.62
	2000N	17.44	0.96	0.58	0.63	13.06	0.86	0.96	0.63
F2	1000N	16.85	0.99	0.68	0.76	11.33	0.75	0.98	0.64
	1500N	15.21	0.99	0.69	0.77	10.17	0.74	0.97	0.64
	2000N	13.86	0.99	0.65	0.80	9.21	0.73	0.97	0.60
F3	1500N	3.86	0.90	0.52	0.69	2.99	0.88	0.90	0.48
	2000N	3.56	0.91	0.51	0.70	2.76	0.88	0.90	0.46
	2500N	3.41	0.94	0.51	0.75	2.55	0.86	0.91	0.45
F4	1500N	5.77	0.98	0.59	0.78	4.12	0.82	0.93	0.52
	2000N	5.28	0.99	0.57	0.68	3.79	0.83	0.88	0.52
	2500N	5.22	0.99	0.56	0.76	3.72	0.82	0.93	0.49

the most fitting mathematical model is shown in bold.

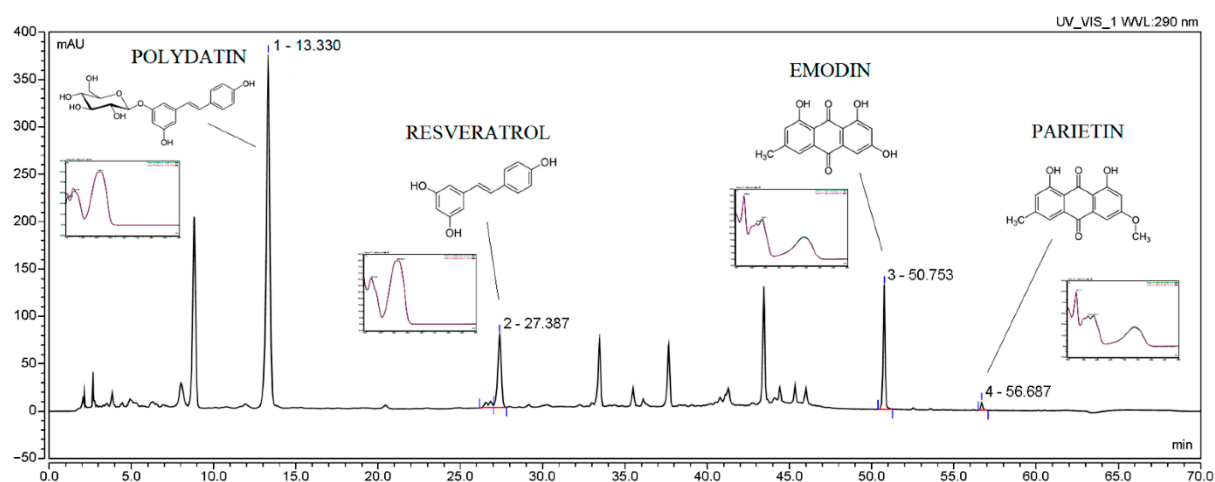


Figure S1. Chromatogram of *Polygoni cuspidati* extract.