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SUPPLEMENTARY MATERIAL TO

Application of experimental design in the examination of the dissolution rate of carbamazepine from formulations. Characterization of the optimal formulation by DSC, TGA, FT-IR and PXRD analysis

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TABLE S-I. Experimental plan for the second set of experiments

Formulation	Input parameters				
	*X*1	*X*2	*X*3	*X*4	*X*5
F1	+1	–1	–1	–1	–1
F2	–1	+1	+1	–1	–1
F3	–1	+1	–1	–1	+1
F4	+1	+1	+1	+1	+1
F5	–1	–1	–1	+1	+1
F6	+1	+1	–1	+1	–1
F7	–1	–1	+1	+1	–1
F8	+1	–1	+1	–1	+1

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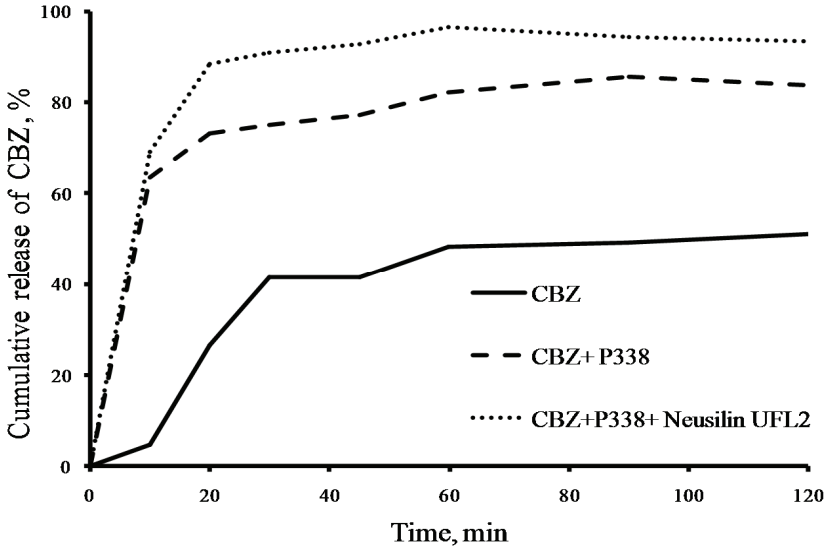
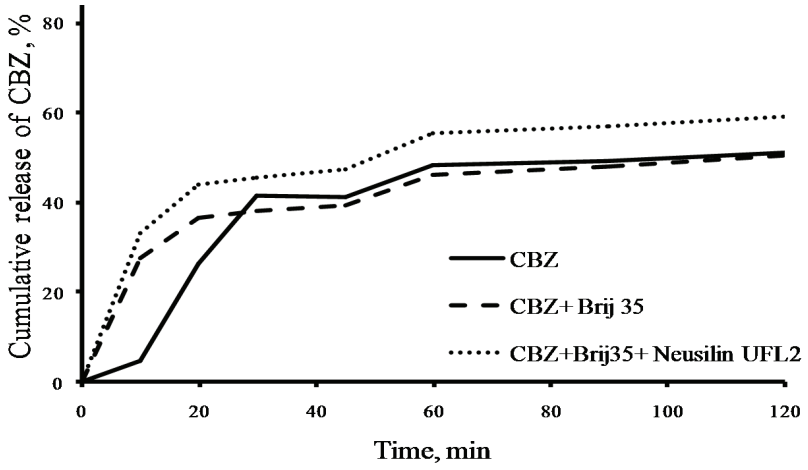
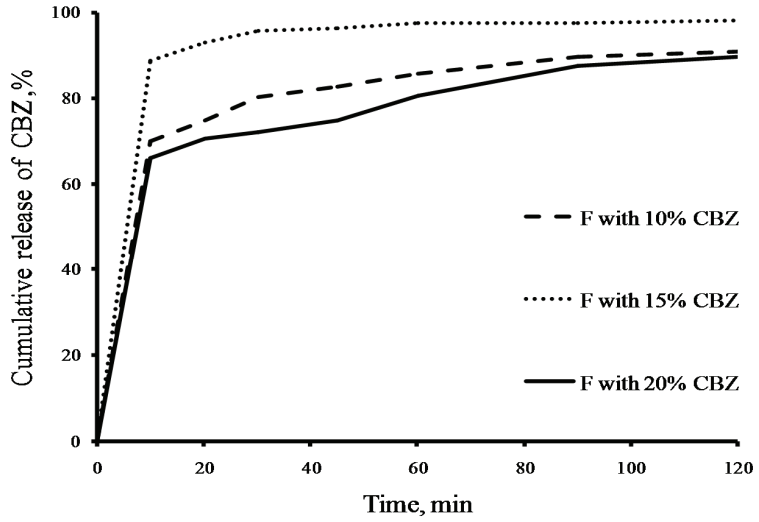


(A)

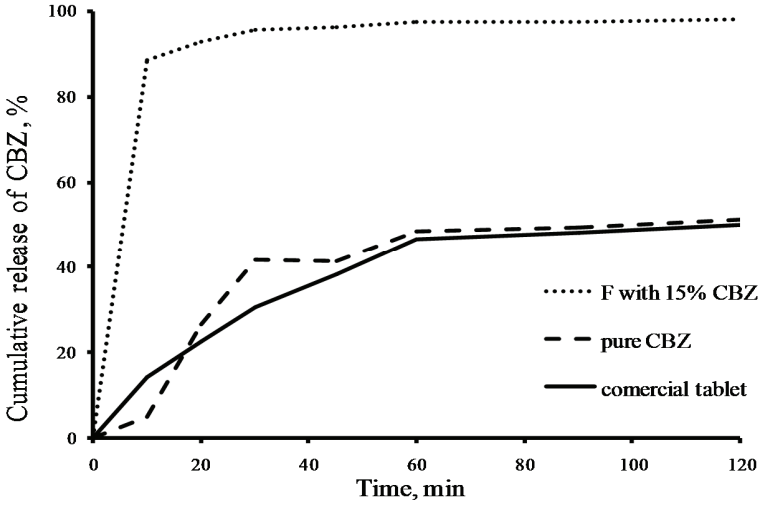


(B)

Fig. S-1. A) Dissolution profile of the mixture prepared with poloxamer 338 (P338) in the first set of experiments and pure CBZ; B) dissolution profile of the mixture prepared with Brij® 35 in the first set of experiments and pure CBZ.



(A)



(B)

Fig. S-2. A) Dissolution profile of the CBZ formulation prepared in the second set of experiments with varied CBZ ratios; B) Dissolution profile of CBZ from optimal formulation, pure CBZ and commercial tablets of CBZ with immediate release.