

Electronic Supplementary Information (ESI) Paragraph

Table S1: Summary of applied mathematical models together with statistical parameter R^2 for all gel and mesoporous glasses. All models are linearized as: $y = ax + b$. a and b parameters were extracted by a least-squares fitting of the experimental UV-Vis results. f_t and $f_{\%t}$ represent the fraction and fraction percentage respectively of Curcumin released at time t with respect to the whole quantity of loaded Curcumin on the sample at time 0.

Model	Sample	Equation parameters		
		a	b	R^2
Korsmeyer-Peppas $y = \text{Log}(f_{\%t})$ $x = \text{Log}(t)$	SG_curc (0-72 h)	0.3512	0.7901	0.9068
	SG_curc (0-4h)	0.9002	0.5836	0.9827
	SG_curc (12-48h)	0.3014	0.8708	0.9986
	SGGa_curc (0-72 h)	0.6519	0.1359	0.9508
	SGGa_curc (0-4h)	1.268	-0.1116	0.9965
	SGGa_curc (12-48h)	0.6124	0.2165	0.9497
	SGP123_curc (0-12 h)	0.3651	0.9912	0.9748
	SGGaP123_curc (0-12 h)	0.4432	0.8640	0.9131
Weibull $y = \text{Log}(-\ln(1-f_t))$ $x = \text{Log}(t)$	SG_curc (0-72 h)	0.3791	-1.201	0.9183
	SG_curc (0-4h)	0.9344	-1.408	0.9843
	SG_curc (12-48h)	0.3373	-1.132	0.9990
	SGGa_curc (0-72 h)	0.6771	-1.869	0.9560
	SGGa_curc (0-4h)	1.281	-2.110	0.9965
	SGGa_curc (12-48h)	0.6265	-1.760	0.9718
	SGP123_curc (0-12 h)	0.3981	-0.988	0.9754
	SGGaP123_curc (0-12 h)	0.4731	-1.120	0.9186
Hyperbolic function $y = t/(f_{\%t})$ $x = t$	SG_curc (0-72 h)	0.0372	0.2763	0.9953
	SG_curc (0-4h)	0.0165	0.2420	0.6204
	SG_curc (12-48h)	0.0352	0.3715	0.9986
	SGGa_curc (0-72 h)	0.0411	1.000	0.9786
	SGGa_curc (0-4h)	-0.1312	1.383	0.8831
	SGGa_curc (12-48h)	0.0394	1.080	0.9771
	SGP123_curc (0-12 h)	0.0361	0.0855	0.9847
	SGGaP123_curc (0-12 h)	0.0426	0.1012	0.9942
Higuchi $y = f_{\%t}$ $x = t^{1/2}$	SG_curc (0-72 h)	2.394	6.733	0.9220
	SG_curc (0-4h)	8.904	-5.042	0.9943
	SG_curc (12-48h)	2.303	7.973	0.9950
	SGGa_curc (0-72 h)	2.384	-0.419	0.9650
	SGGa_curc (0-4h)	3.656	-3.056	0.9804
	SGGa_curc (12-48h)	2740	-1.750	0.9410
	SGP123_curc (0-12 h)	5.755	4.513	0.9631
	SGGaP123_curc (0-12 h)	5.160	3.237	0.8988

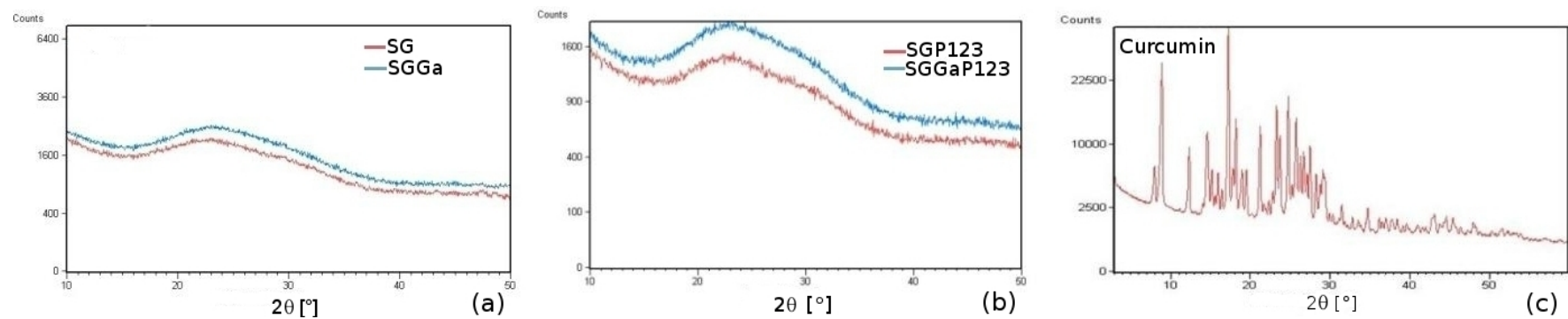


Figure S1: XRD powders spectra of gel glasses [section (a)], mesoporous glasses [section (b)] and Curcumin [section (c)]

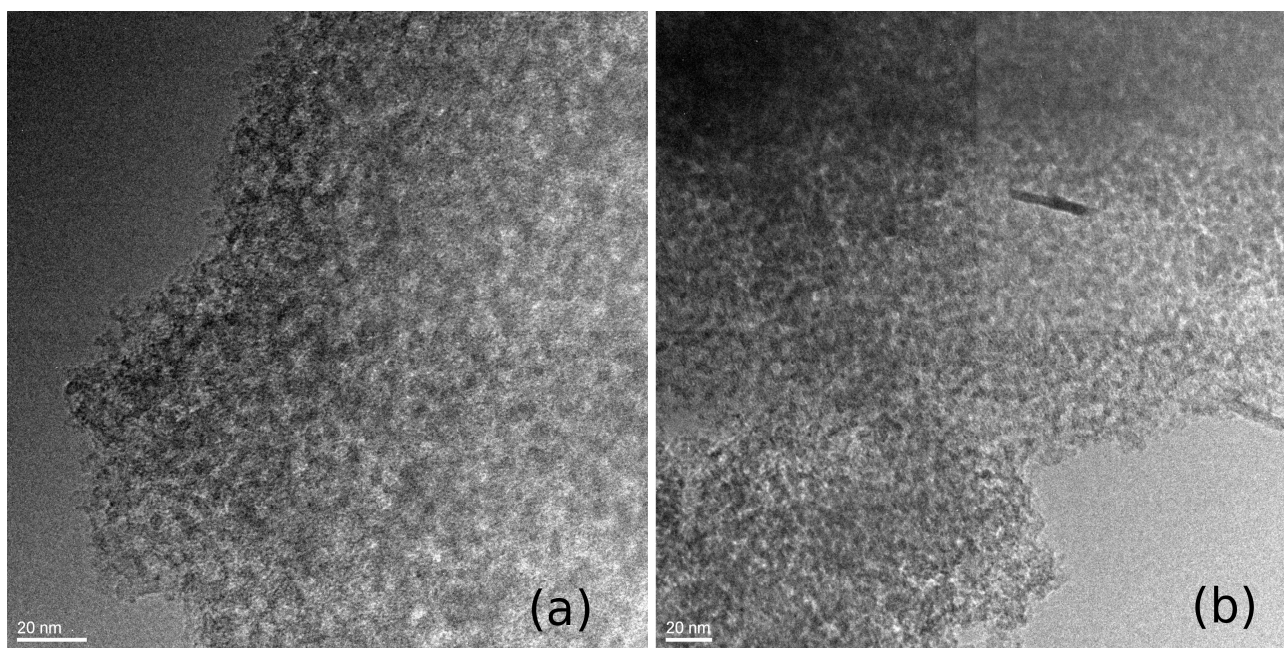


Figure S2. HR-TEM images of the samples SGP123 (a) and SGGaP123 (b).

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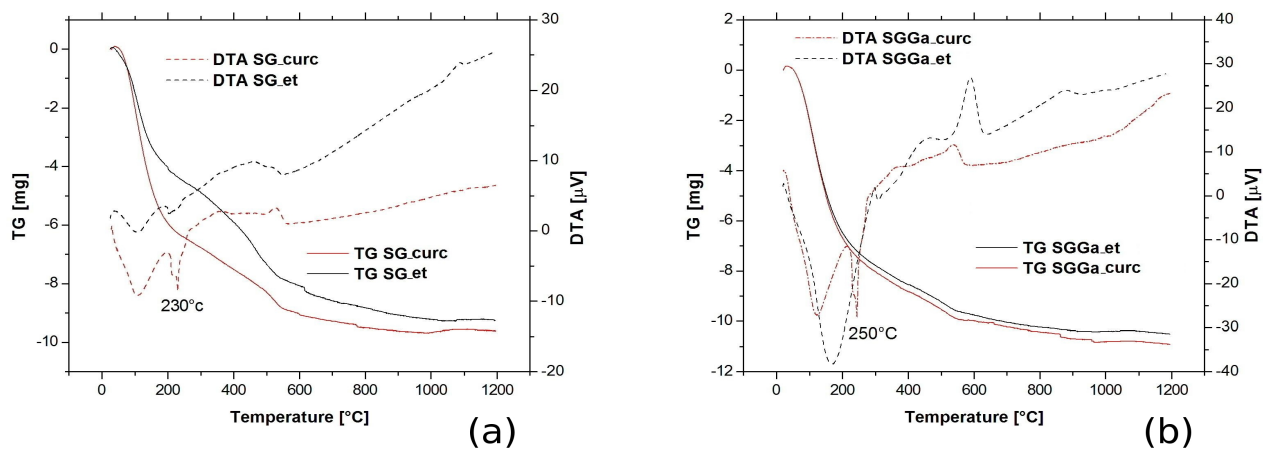


Figure S3. DTA and TG plots of SG gel glasses [section (a)] and SGGa gel glasses [section (b)] after treatment with only ethanol (black curves) and after Curcumin loading (red lines).