Electronic Supplementary information

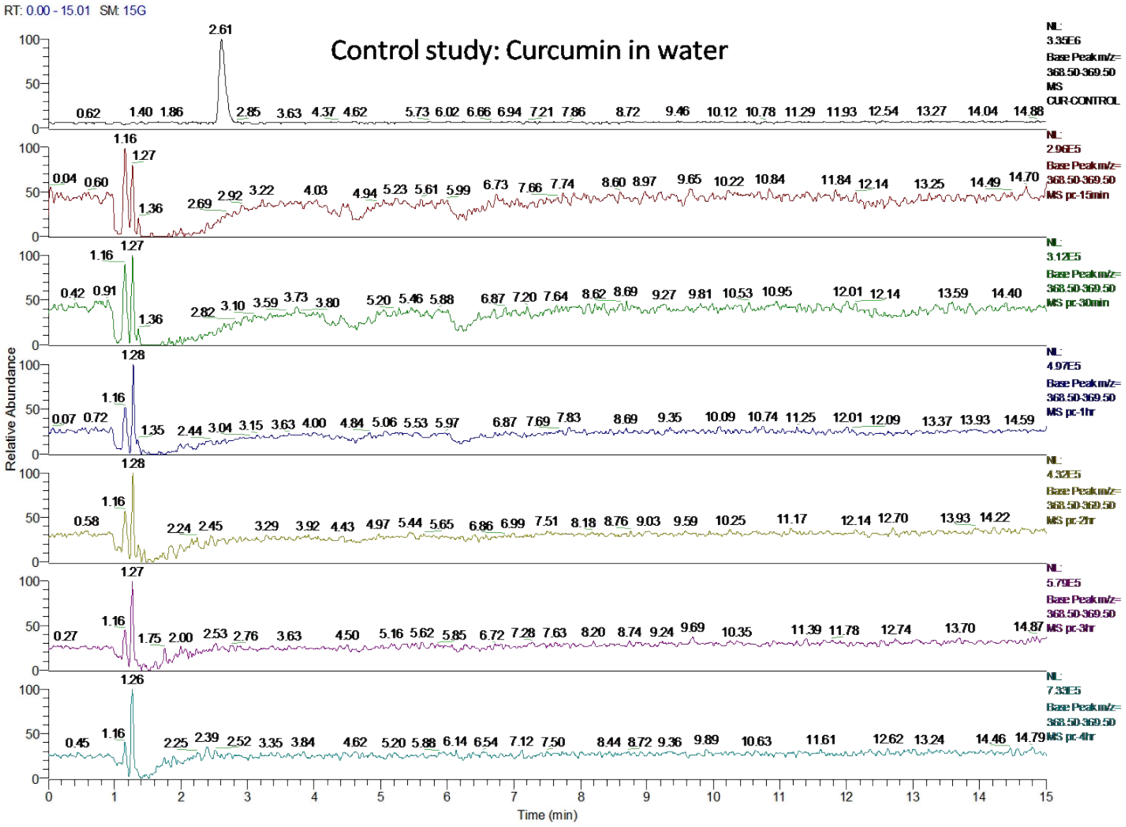

Fig: 1HR-MS Chromatogram of Curcumin in Aceonitrile and subsequently aligned graphs of Control (curcumin 100µg/ml in water) animals plasma analysis for presence of curcumin viz. 0hr, 15min, 30min, 1hr, 2hr and 3hr.

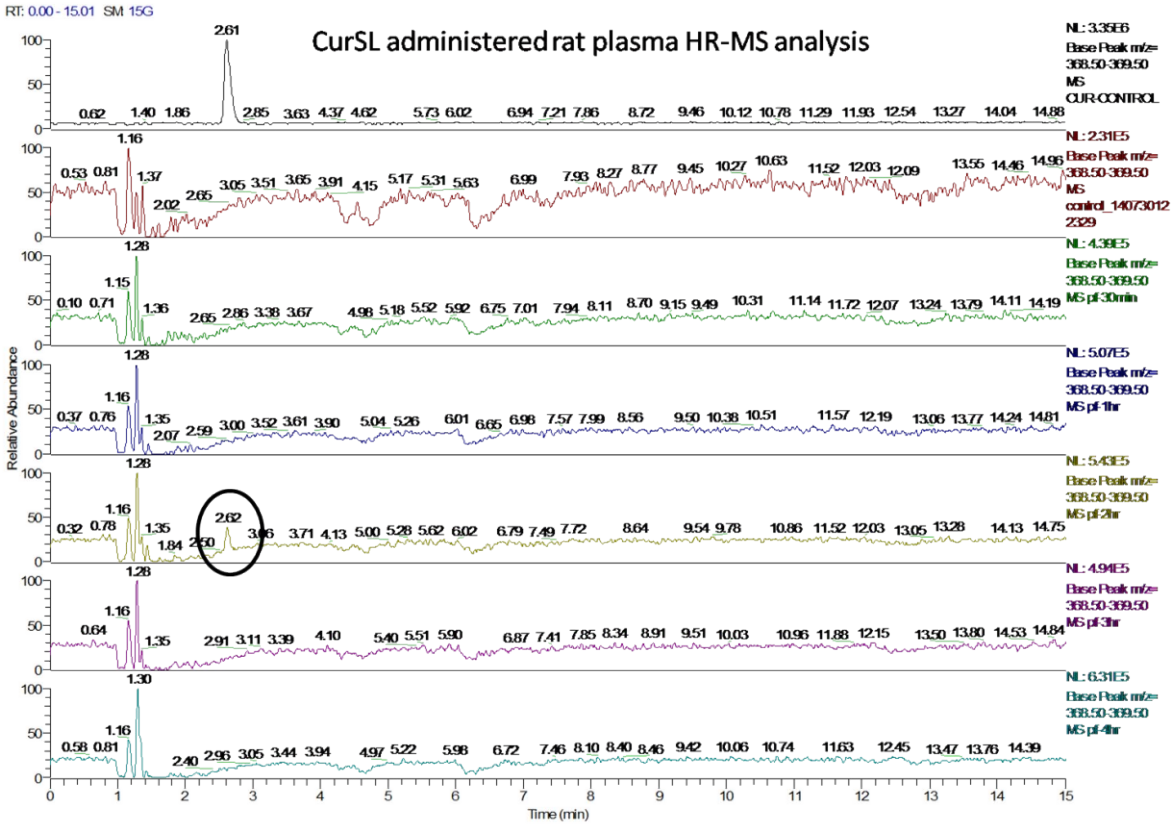

Fig: 2 HR-MS Chromatogram of Curcumin in Aceonitrile and subsequently aligned graphs of CurSL (curcumin 100µg/ml in SL solution) animals plasma analysis for presence of curcumin viz. 0hr, 15min, 30min, 1hr, 2hr and 3hr. at 2hr peak is observed on 2.62min with same molecular weight and formula as that of Std. Curcumin. (given in paper)

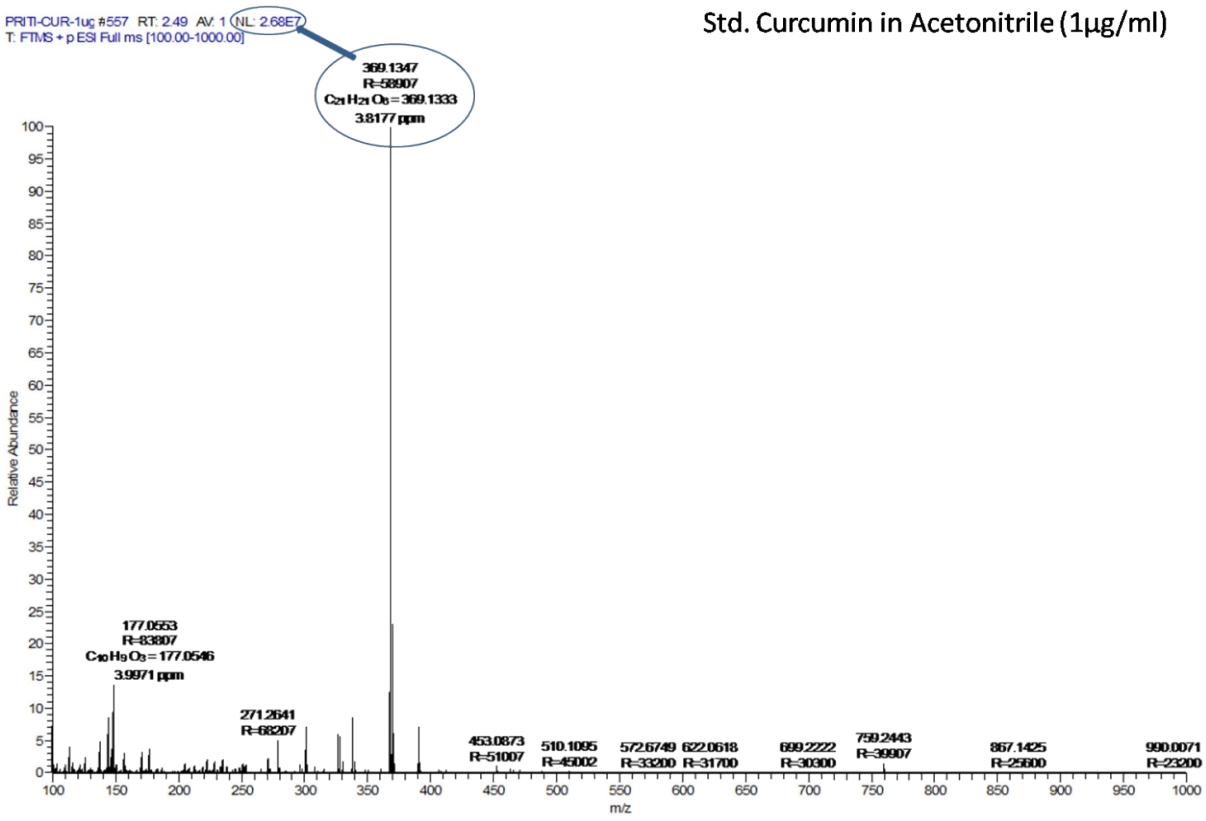

Fig: 3 HR-MS graph of Std. Curcumin in Acetonitrile at 1µg/ml concentration. NL: 2.68E7 was used to calculate the ~concemtration of curcumin in blood plasma of rats with CurSL solution. At 2hr peak the observed NL was 4.25E5.

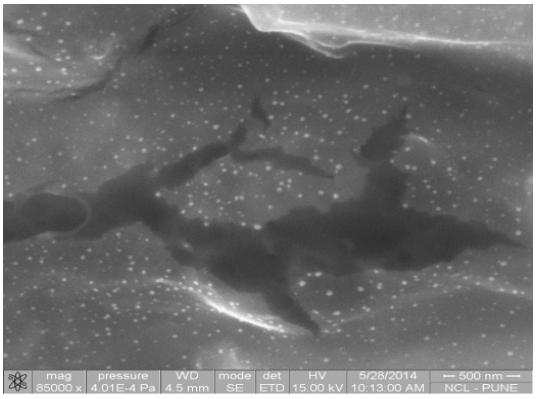

Fig 4. SEM of CurSL-GNPs

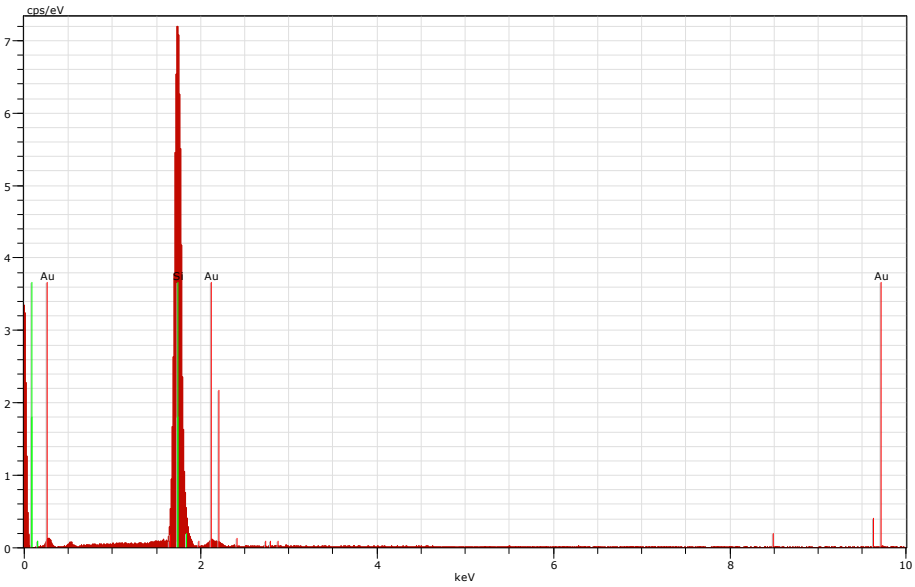

Fig 5. EDX Graph of CurSL-GNPs in SEM mode

Table 1: EDX distribution of gold

El	AN	Series	unn. C [wt.%]	norm. C [wt.%]	Atom. C [at.%]	Error [%]
Si	14	K-series	84.93	83.38	97.24	4.3
Au	79	L-series	16.92	16.62	2.76	0.9
Total:			101.86	100.00	100.00	

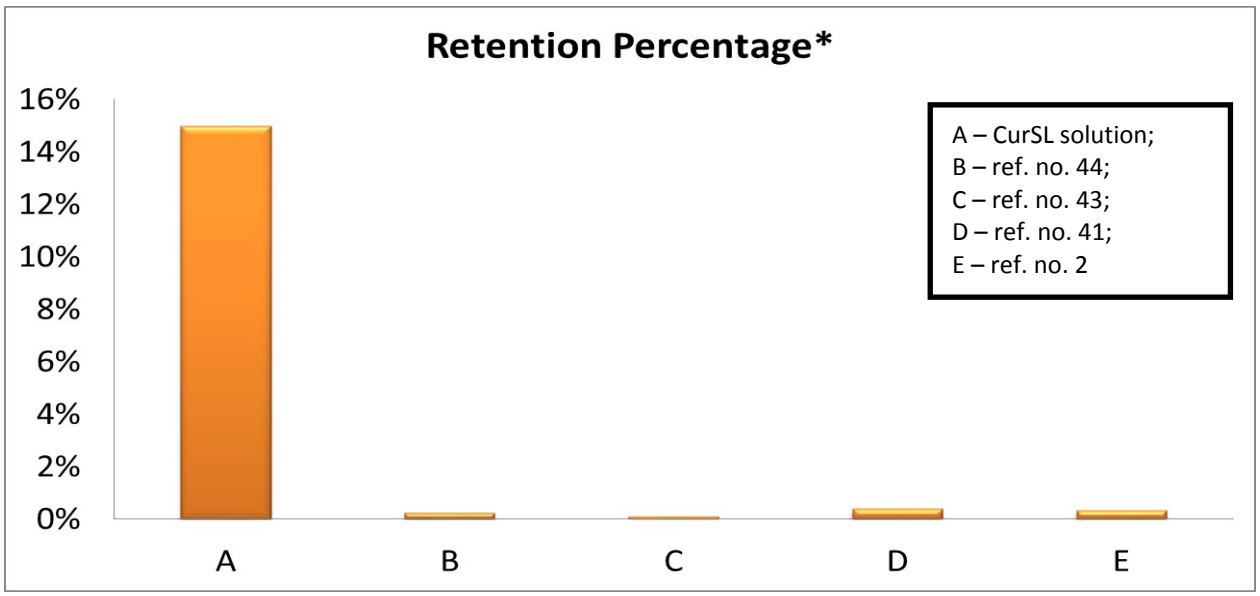

***Fig: 6**A common factor of 10^{-3} has been considered for all the examples including CurSL. The retention percentage of curcumin has been calculated depending on the amount of dose given with respect to the quantity recovered.