# ROYAL SOCIETY OF CHEMISTRY

### ARTICLE

Biomimetic matrix mediated room temperature synthesis and characterization of nano-

#### Hydroxyapatite towards targeted drug delivery

Lubna Sheikh<sup>a, b, c</sup>, Sucheta Tripathy,<sup>a,b</sup>, Suprabha Nayar<sup>a,c\*</sup>.



Fig.S<sub>1</sub> represents the linear fitting of the cumulative release % data of pH 7.4 with square root of time up to 8hrs.

ARTICLE

Sample	SlopeValue	Slope Error	Statistics Adj. R Square
Bare-HA	0.00176	2.21922E-4	0.95391
B-HA	0.0033	2.02033E-4	0.98883
C-HA	0.00211	7.95751E-5	0.99576
P-HA	0.00256	2.59286E-4	0.96983

Table. 1 depicts the slope values obtained from the fitting of the plots of Fig. S1 with the error and reduced chi square values. The obtained slope values were used to calculate the diffusion coefficients of the respective HA tablets



Fig. S2 shows the linear fitting of the drug release data with square root of time up to 8 hrs for (a) Bare- (b) B-, (c) C- and (d) P-HA respectively. The diffusion coefficient of the HA tablets were calculated from the slope of the fitting.

This journal is © The Royal Society of Chemistry 20xx

#### ARTICLE

Sample	Slope Value	Slope Error	Statistics Adj. R-Square
Bare-HA	0.00113	1.87275E-4	0.922
B-HA	0.00163	1.03519E-4	0.98803
C-HA	0.00187	3.10486E-4	0.92167
P-HA	0.00208	2.75659E-4	0.94892

Table. 2 depicts the slope values obtained from the fitting of the plots of Fig.  $S_2$  with the error and reduced chi square values. The obtained slope values were used to calculate the diffusion coefficients of the respective HA tablets.



Fig. S3 represents release profile at different time points (a) initial 8 hrs plot, (b) 8hrs to 144 hrs and (c) total plot i.e. 0 to 144 hrs, at pH 7.4

## ARTICLE



Fig. S4 represents release profile at different time points (a) initial 8 hrs plot, (b) 8hrs to 144 hrs and (c) total plot i.e. 0 to 144 hrs, at pH 5