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## Supplementary material

For

## Fluorescence, FTIR and <sup>1</sup>H NMR Study of the inclusion complexes of the

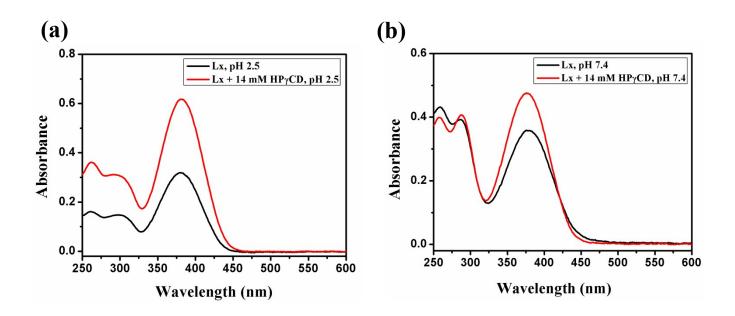
## painkiller Lornoxicam with β-, γ- Cyclodextrins and their hydroxy propyl

## derivatives in aqueous solution at different pH and in solid state

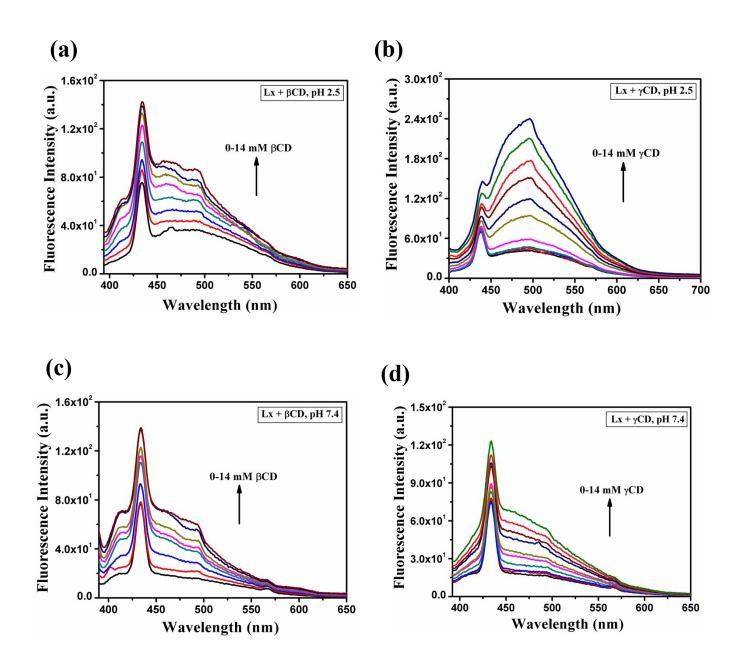
Sathi Goswami,1 Munna Sarkar\*1

<sup>1</sup>Chemical Sciences Division, Saha Institute of Nuclear Physics, 1/AF Bidhannagar, Kolkata – 700064, India

\*: Corresponding Author Phone: +91-33-2337-5345 to 49 Fax: +91-33-2337-4637 E-mail: munna.sarkar@saha.ac.in

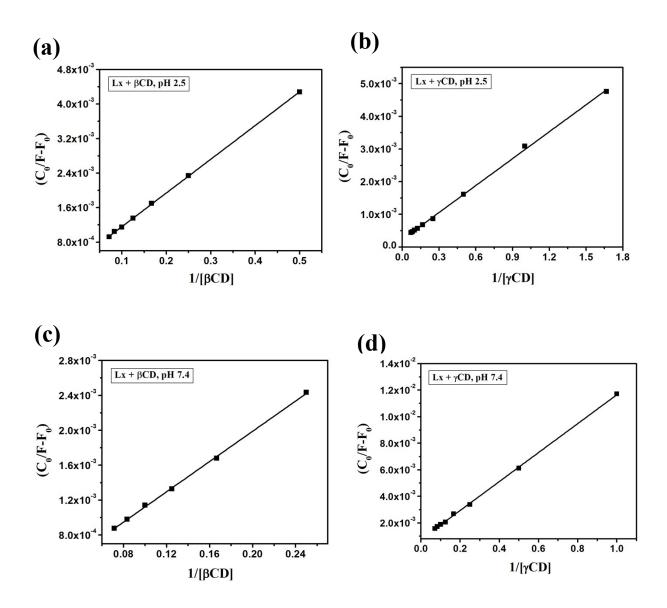


**Fig. S1.** Overlaid absorption spectra of (a) 30  $\mu$ M Lx (black) and 30  $\mu$ M Lx with 14 mM HP $\gamma$ CD (red) at pH 2.5; (b) 30  $\mu$ M Lx (black) and 30  $\mu$ M Lx with 14 mM HP $\gamma$ CD (red) at pH 7.4. The spectra were taken after one hour incubation of Lx and HP $\gamma$ CD. All experiments were done under the same experimental conditions.



**Fig. S2.** Fluorescence emission spectra of 30  $\mu$ M Lx with increasing concentration of (a)  $\beta$ CD and (b)  $\gamma$ CD at pH 2.5 and with increasing concentration of (c)  $\beta$ CD and (d)  $\gamma$ CD at pH 7.4. The  $\lambda_{exc}$  and  $\lambda_{em}$  were set at 379 nm and 506 nm for pH 2.5 and 376 nm and 496 nm for pH 7.4 respectively. The concentrations of the CDs were varied from 0-14 mM. The spectra were taken

after one hour incubation of drug with corresponding CDs. All experiments were done under the same experimental conditions.



**Fig. S3.** Benesi-Hildebrand plot for 1:1 host:guest complex of (a) Lx and  $\beta$ CD (b) Lx and  $\gamma$ CD at pH 2.5 and for (c) Lx and  $\beta$ CD and (d) Lx and  $\gamma$ CD at pH 7.4. The concentration of drug was

kept at 30  $\mu$ M and the CDs were varied from 0-14 mM. All experiments were done under the same experimental conditions.

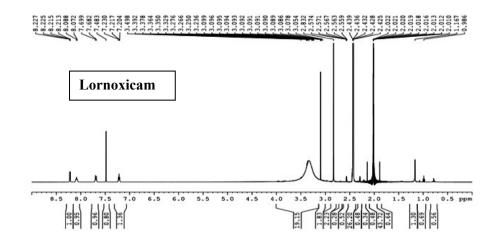


Fig. S4. <sup>1</sup>H NMR spectra of Lornoxicam in DMSOd6.