

Electronic supplementary information for:

**Electrospun organic-inorganic nanohybrids as sustained release drug
delivery systems**

Yanshan Gao^{1,2}, Tian Wei Teoh², Qiang Wang^{1,*}, Gareth R. Williams^{2,*}

¹College of Environmental Science and Engineering, Beijing Forestry University, 35
Qinghua East Road, Haidian District, Beijing 100083, P. R. China

²UCL School of Pharmacy, University College London, 29–39 Brunswick Square,
London WC1N 1AX, United Kingdom

*Corresponding authors:

Professor Qiang Wang:

Tel.: +8613699130626

E-mail: qiangwang@bjfu.edu.cn; qiang.wang.ox@gmail.com

Dr Gareth R. Williams:

Tel.: +44 (0) 20 77535868

E-mail: g.williams@ucl.ac.uk

Table S1. Elemental analyses of the drug loaded LDHs

Sample	Batch	Chemical formula	C % (obsd)	C % (calcd)	H % (obsd)	H % (calcd)	Drug loading / %	Mean drug loading / %
ibu-LDH	1	[Mg ₂ Al(OH) ₆](C ₁₃ H ₁₇ O ₂) _{0.7} (CO ₃) _{0.15} ·1.5H ₂ O	30.86	31.09	5.50	5.89	40.21	42.01 ± 2.55
	2	[Mg ₂ Al(OH) ₆](C ₁₃ H ₁₇ O ₂) _{0.8} (CO ₃) _{0.1} ·1.5H ₂ O	33.15	33.64	6.30	6.08	43.81	
ket-LDH	1	[Mg ₂ Al(OH) ₆](C ₁₆ H ₁₃ O ₃) _{0.7} (CO ₃) _{0.15} ·1.5H ₂ O	33.92	34.89	4.38	4.67	45.35	45.89 ± 0.76
	2	[Mg ₂ Al(OH) ₆](C ₁₆ H ₁₃ O ₃) _{0.7} (CO ₃) _{0.15} ·H ₂ O	35.82	35.69	4.89	4.51	46.42	

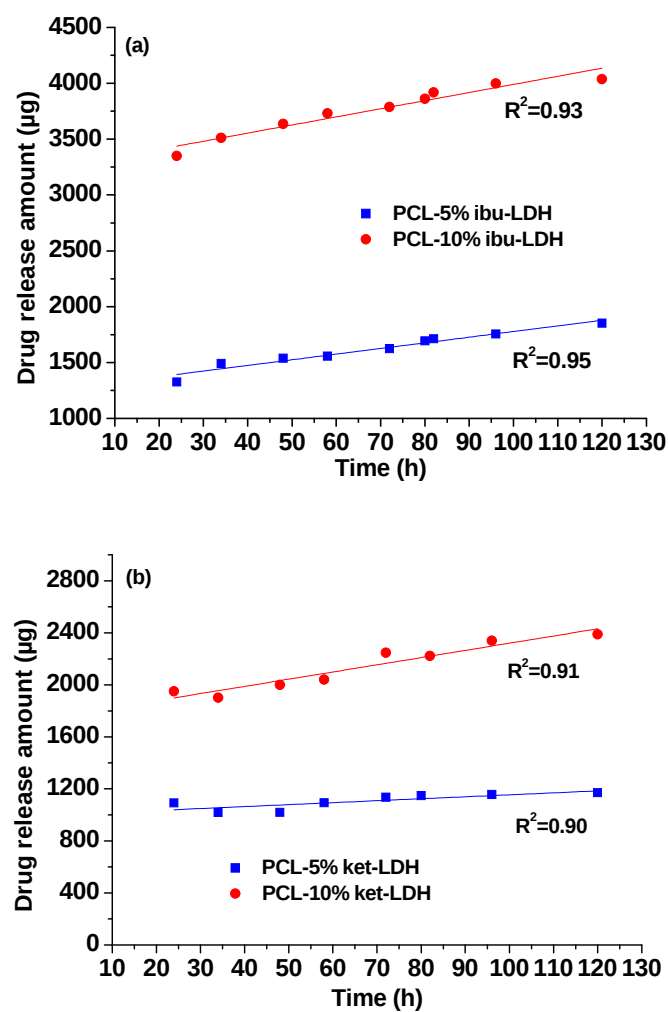


Fig. S1 Fits of zero-order release equations to the data between 24 and 120 h for (a) PCL/ibu-LDH fibers and (b) PCL/ket-LDH fibers.

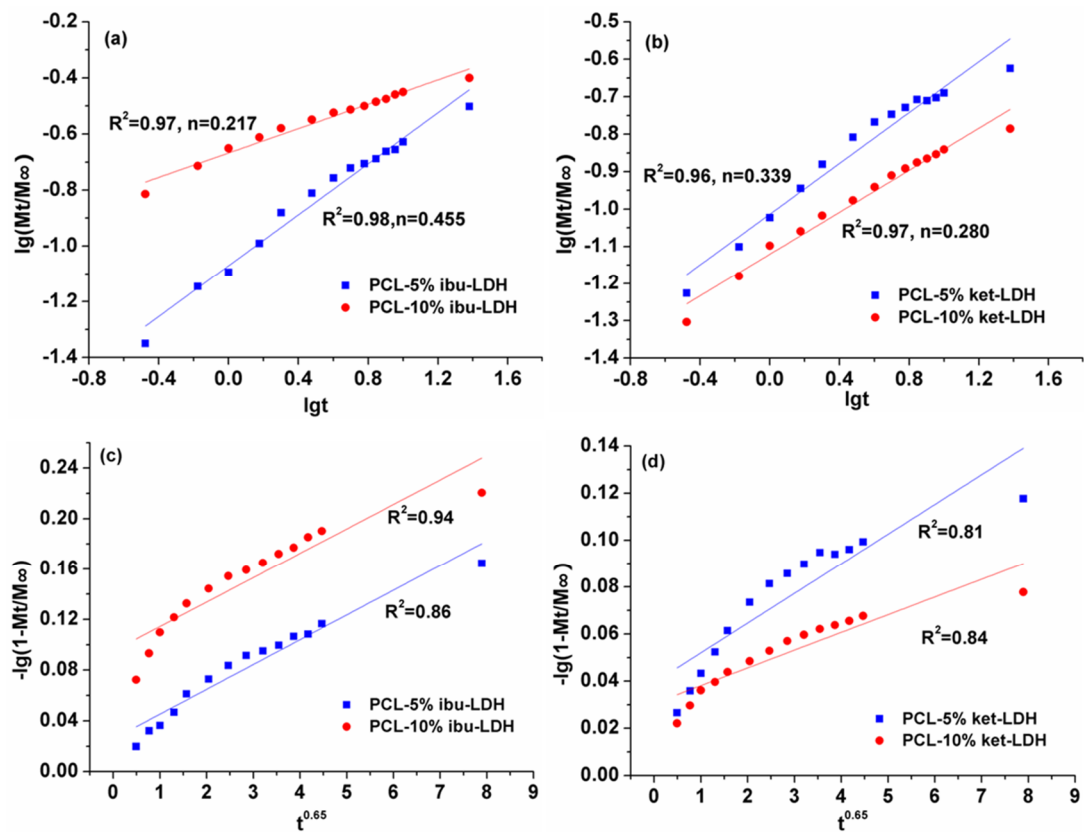


Fig. S2 Fits of the (a-b) Ritger-Peppas and (c-d) Bhaskar equations to the first day's release data for the PCL/drug-LDH fibers.