Supporting Information

for

Controlled Release Kinetics in Hydroxy Double Salts: Effect of Host Anion Structure.

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Table S 1: Elemental analysis and UV-vis comparison of amount of anions intercalated in nanohybrids

	Amount (m moles/gram)		
Nanohybrid	carbonate exchange	elemental analysis	% difference
ZC-*o*-HCn	0.0253	0.0283	9.3
ZC-*m*-HCn	0.0339	0.0352	3.5
ZC-*p*-HCn	0.0342	0.0377	9.0

Table S 2: The wavenumbers (cm^{-1}) and assignments of bands occurring in FT-IR bands for the nanohybrids

ZC- *o*-HCn	ZC- *m*-HCn	ZC- *p*-HCn	Assignment
3412	3422	3835	$\nu(OH)_{ar} + \nu(C=O)$
1637	1643	1642	$\nu(CC)_{C=C}$
1603	1586	1609	$\nu(CC)_{ar}$
1540	1551	1553	$\nu_{as}(COO-)$
1461	1495;1436	1513;1449	$\nu(CC)_{ar}$
1398	1403	1427	$\nu s(COO-)$
1299;1252	1279	1250	$\beta(CH)_{C=C}$
1153	1185	1175	$\beta(CH)_{ar}$
1093	1151	1103	$\beta(CH)$
979	972	974	$\nu(CCO)$
864	863	855	$\gamma(CH)$

Notes: The assignment was done on the basis of literature data [24]. The symbol "*ν*" denotes stretching vibrations, "*β*" denotes in-plane deformations, "*γ*" denotes out-of-plane deformations. The band is marked with "*as*" – asymmetric vibrations, "*s*" – symmetric, "*ar*" – vibrations of the aromatic ring.

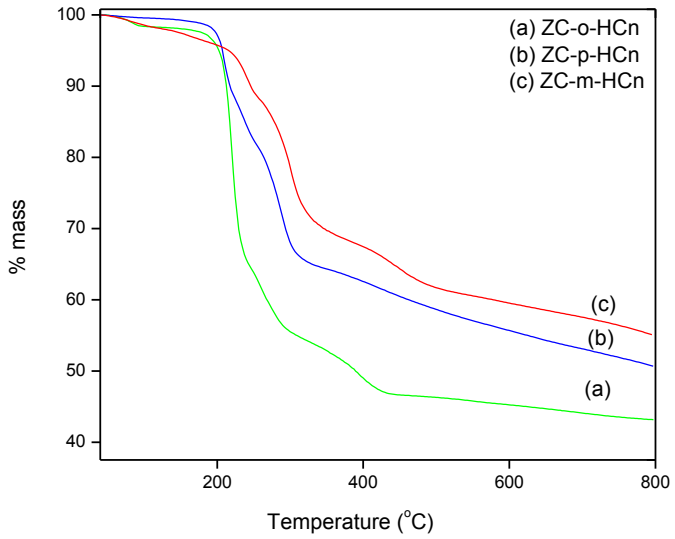

Figure S1: TG curves for the degradation of (a) ZC-*o*-HCn, (b) ZC-*p*-HCn and (c) ZC-*m*-HCn in nitrogen atmosphere at a ramp rate of 20°C/min

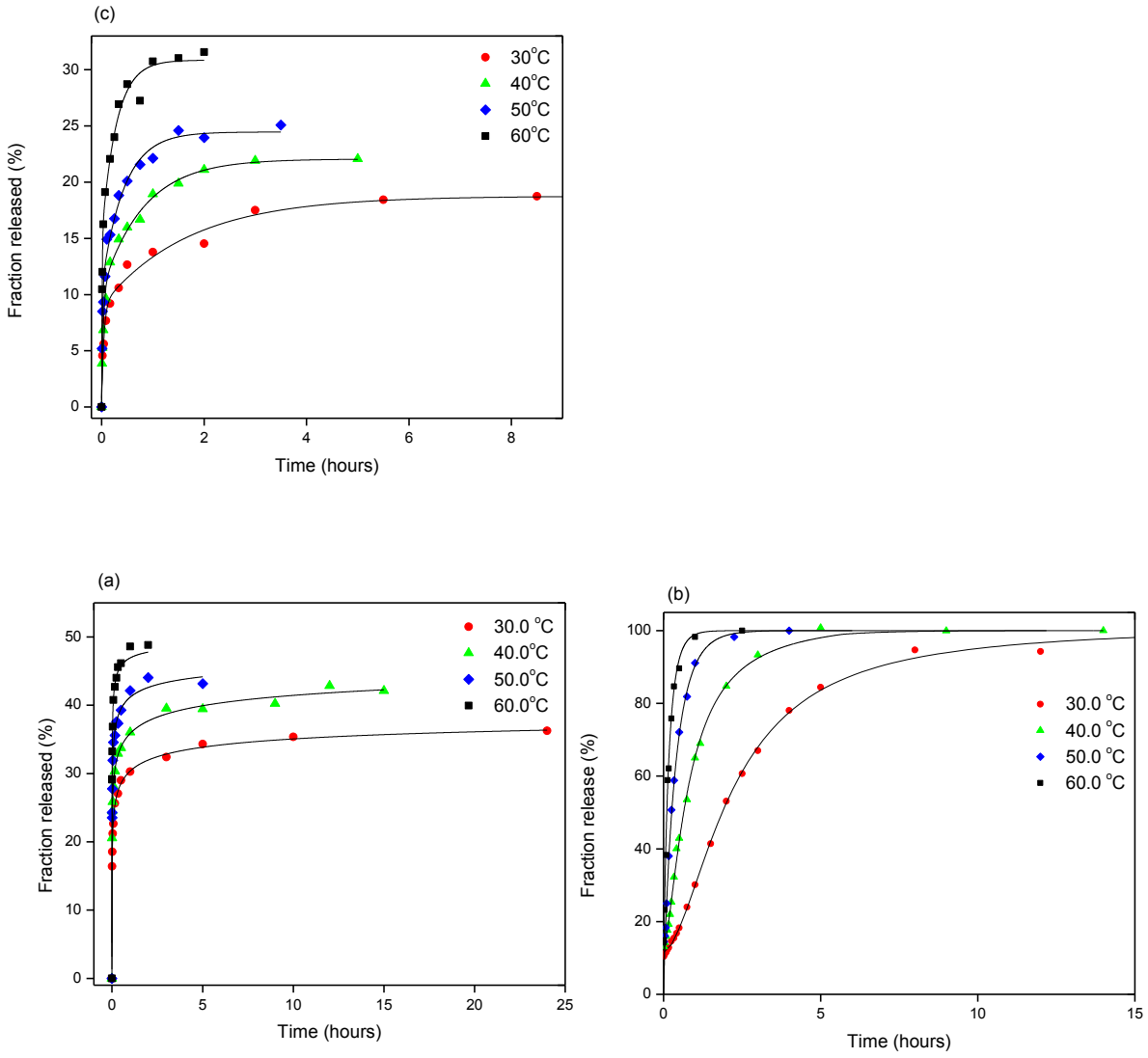

Figure S2: Controlled release of **(a)** *m*-HCn **(b)** *o*-HCn **(c)** *p*-HCn at different temperatures in 1.0 M sodium chloride solution.

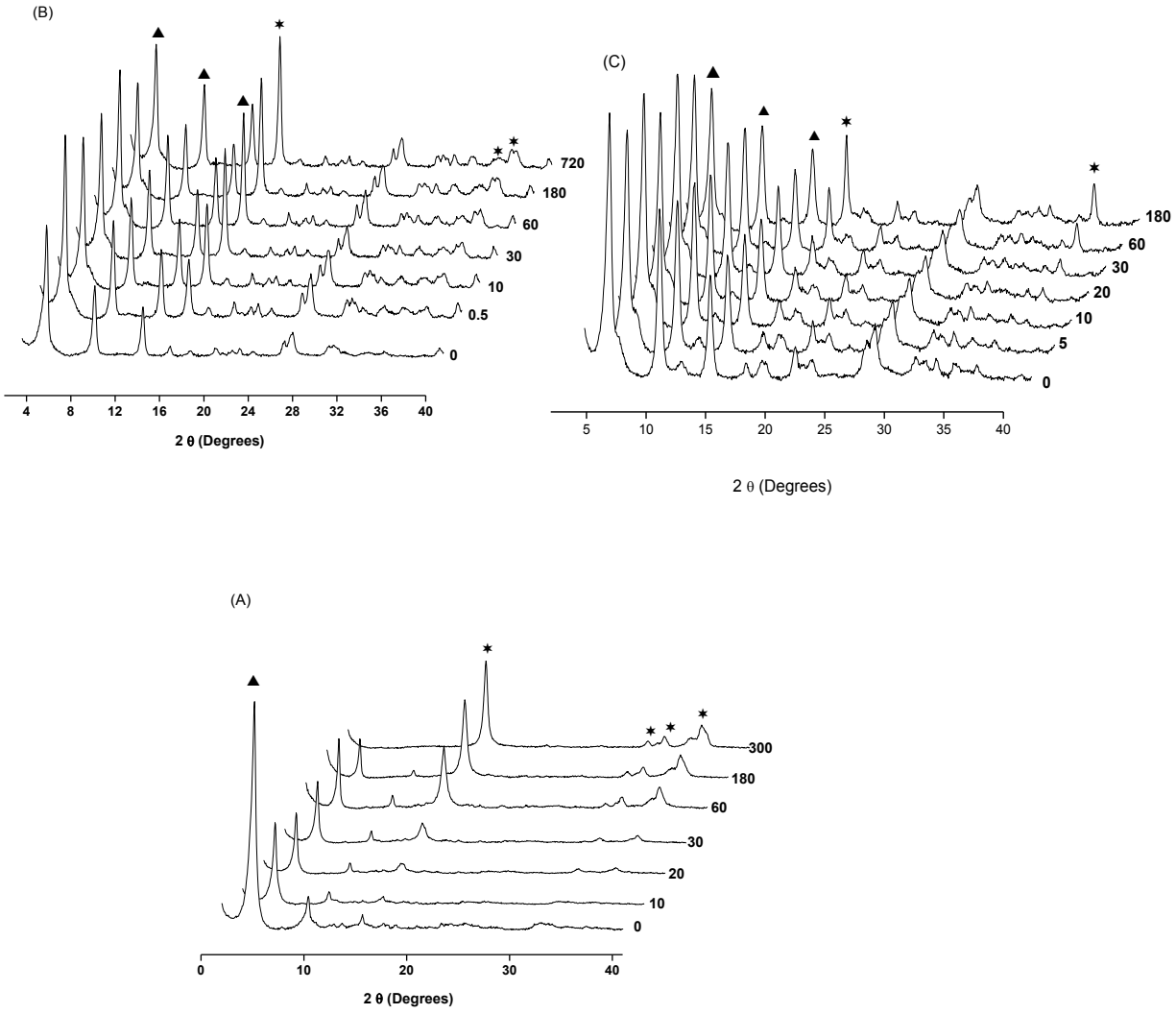

Figure S3: PXRD profiles for solid sample collected at different times (mins) for the reaction of (A) ZC-*o*-HCn (B) ZC-*m*-HCn (C) ZC-*p*-HCn, with Cl^- at 40^{o}C. The Cl^-phase is represented by asterisk and the host phase represented by closed triangles

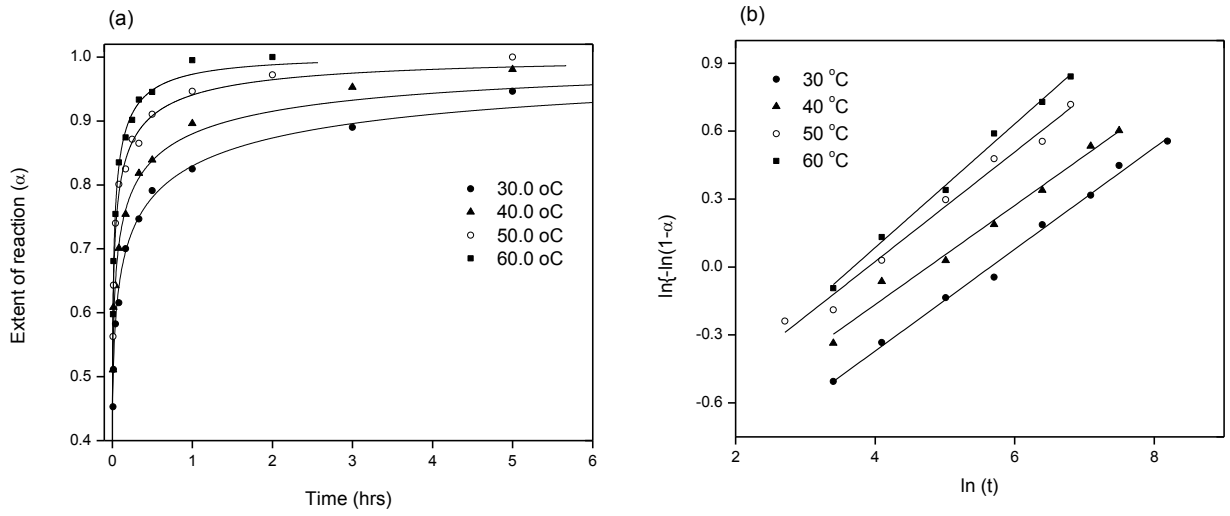

Figure S4. (a) Extent of reaction as a function of time and (b) double logarithmic plots for the release of *m*-HCn at various temperatures: 60ºC (■), 50ºC (○), 40ºC (▲), 30ºC (●), the extent of reaction data has been fitted to Avrami –Erofe'ev equation.

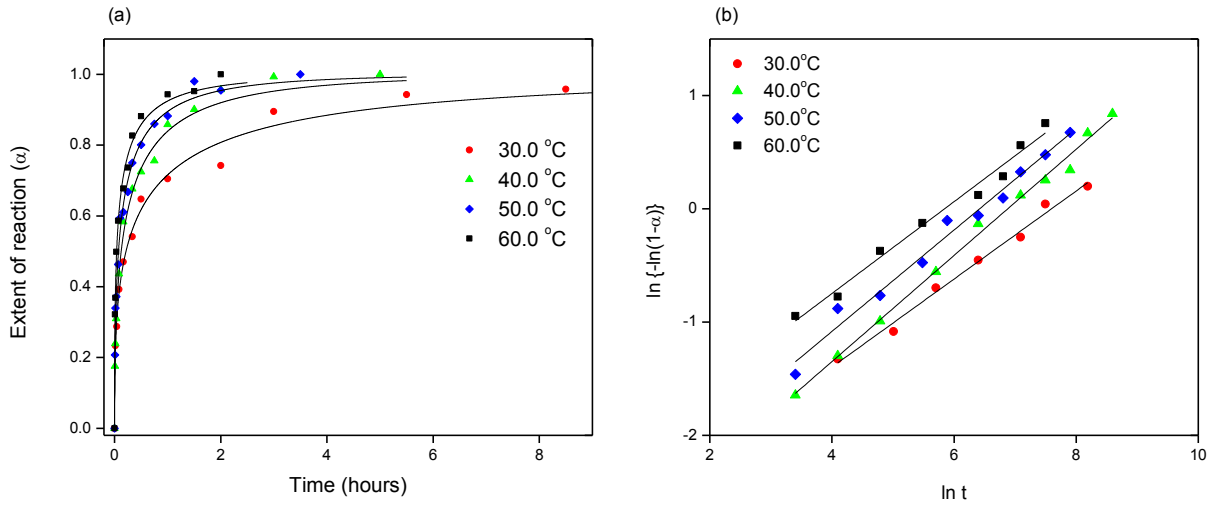

Figure S5. (a) Extent of reaction as a function of time and (b) double logarithmic plots for the release of *p*-HCn at different temperatures: 60ºC (■), 50ºC (♦), 40ºC (▲), and 30ºC (●); the extent of reaction data has been fitted to Avrami –Erofe'ev equation.