Electronic Supplementary Material (ESI) for CrystEngComm.

Supplementary Information

Table S1 The specific dosage of the precursors for different samples.

Precursors / Samples	$La(NO_3)_3.6H_2O$ (g)	KNO_3 (g)	$Ni(NO_3)_2.6H_2O$ (g)	$Mn(NO_3)_2.4H_2O$ (g)
LNMO	3.5533	0.0000	1.1932	1.0299
LKNMO0025	3.5270	0.0104	1.1994	1.0352
LKNMO005	3.5003	0.0210	1.2056	1.0406
LKNMO0075	3.4734	0.0316	1.2118	1.0460
LKNMO010	3.4462	0.0424	1.2182	1.0515

Table S2 Lattice parameters of the LKNMO samples obtained from Rietveld analysis.

sample	Atom	x	y	z	occupation	R_{wp}	χ^2
LNMO	La	0.2500	0.2500	0.2500	1	9.04%	1.73
	/	/	/	/	/		
	Ni	0	0	0	0.5		
	Mn	0	0	0	0.5		
	O	0.8004	-0.3004	0.2500	0.9970		
	Atom	x	y	z	occupation	R_{wp}	χ^2
LKNMO0025	La	0.2500	0.2500	0.2500	0.9875	8.59%	1.22
	K	0.2500	0.2500	0.2500	0.0125		
	Ni	0	0	0	0.5		
	Mn	0	0	0	0.5		
	O	0.8004	-0.3004	0.2500	0.9879		
	Atom	x	y	z	occupation	R_{wp}	χ^2
LKNMO005	La	0.2500	0.2500	0.2500	0.975	10.35%	1.38
	K	0.2500	0.2500	0.2500	0.025		
	Ni	0	0	0	0.5		
	Mn	0	0	0	0.5		
	O	0.8016	-0.3016	0.25	0.9775		
	Atom	x	y	z	occupation	R_{wp}	χ^2
LKNMO0075	La	0.2500	0.2500	0.2500	0.9625	9.58%	1.25
	K	0.2500	0.2500	0.2500	0.0375		
	Ni	0	0	0	0.5		
	Mn	0	0	0	0.5		
	O	0.7948	-0.2948	0.2500	0.9675		
LKNMO010	Atom	x	y	z	occupation	R_{wp}	χ^2

	La	0.2500	0.2500	0.2500	0.95		
	K	0.2500	0.2500	0.2500	0.05		
	Ni	0	0	0	0.5	9.12%	1.19
	Mn	0	0	0	0.5		
	O	0.8024	-0.3024	0.2500	0.9557		

Table S3 *pH* of catalyst-tetracycline suspension during photodegradation process

Samples	LNMO	LKNMO0025	LKNMO005	LKNMO0075	LKNMO010
t=-60 min	*pH*=5.71	*pH*=5.72	*pH*=5.86	*pH*=5.72	*pH*=5.83
t=-40 min	*pH*=5.72	*pH*=5.51	*pH*=5.58	*pH*=5.66	*pH*=5.82
t=-20 min	*pH*=5.75	*pH*=5.72	*pH*=5.74	*pH*=5.77	*pH*=5.75
t=0 min	*pH*=5.72	*pH*=5.80	*pH*=5.54	*pH*=5.61	*pH*=5.73
t=30 min	*pH*=5.92	*pH*=5.75	*pH*=5.61	*pH*=5.87	*pH*=5.96
t=60 min	*pH*=5.94	*pH*=5.92	*pH*=5.91	*pH*=5.93	*pH*=5.97
t=90 min	*pH*=5.91	*pH*=5.95	*pH*=6.04	*pH*=5.97	*pH*=6.13
t=120 min	*pH*=6.12	*pH*=6.14	*pH*=6.18	*pH*=6.14	*pH*=6.38
t=150 min	*pH*=6.55	*pH*=6.54	*pH*=6.58	*pH*=6.54	*pH*=6.53
t=180 min	*pH*=6.83	*pH*=6.75	*pH*=6.57	*pH*=6.79	*pH*=6.71
t=210 min	*pH*=6.75	*pH*=6.84	*pH*=6.62	*pH*=6.86	*pH*=6.71
t=240 min	*pH*=6.85	*pH*=6.84	*pH*=6.72	*pH*=6.78	*pH*=6.84