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ELECTRONIC SUPPLEMENTARY DATA

Surfactant Directed Synthesis of Calcium Aluminum Layered Double Hydroxides Nanoplatelets

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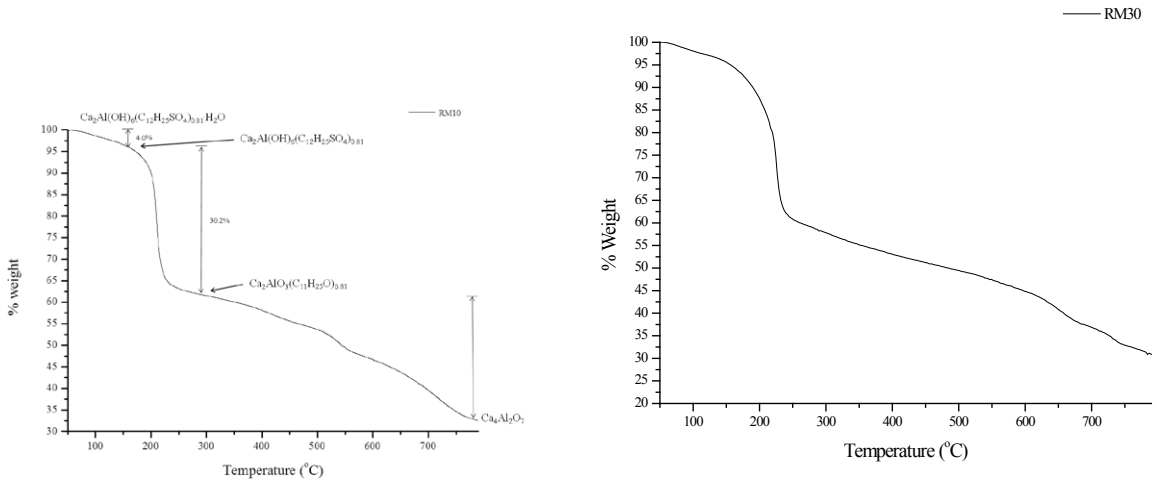

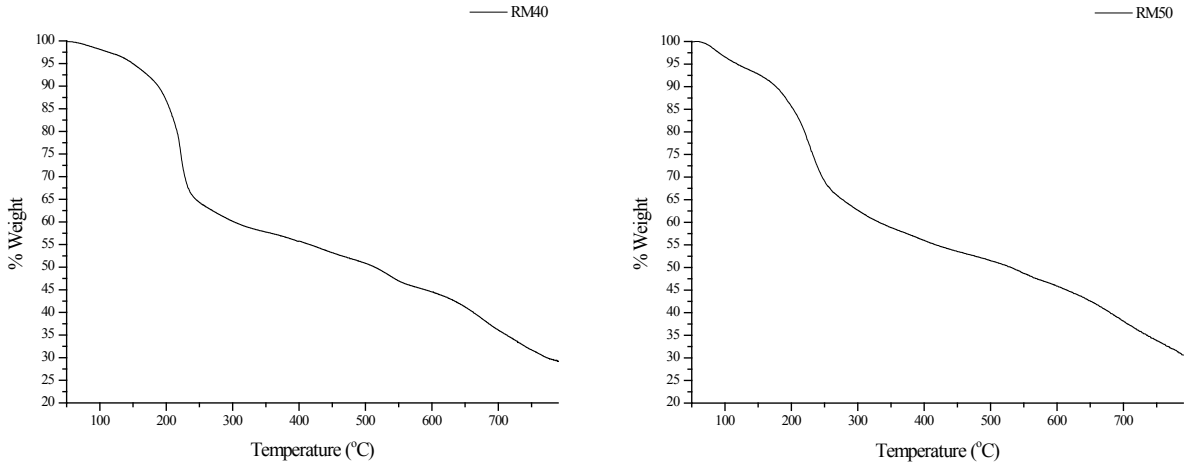

Fig S1. TGA data for CaAl-DDS RM10, 30, 40, and 50.

Table S1. A summary of the chemical microanalysis data for CaAl-DDS RM*n* (*n* = 10-50)

CaAl-DDS	Chemical composition, obs. (calc.); (wt%)			
RM*n*	C	H	N	Formula
RM10	30.0(30.7)	5.6(6.9)	0.00(0.00)	$Ca_{1.95}Al(OH)_6(C_{12}H_{25}SO_4)_{0.9}\bullet H_2O$[a]
RM20	26.2(26.5)	4.1(6.5)	0.00(0.00)	$Ca_{1.9}Al(OH)_6(C_{12}H_{25}SO_4)_{0.8}\bullet H_2O$
RM30	30.4(29.3)	6.3(6.7)	0.00(0.00)	$Ca_2Al(OH)_6(C_{12}H_{25}SO_4)\bullet H_2O$
RM40	29.1(29.3)	6.7(6.7)	0.00(0.00)	$Ca_2Al(OH)_6(C_{12}H_{25}SO_4)\bullet H_2O$
RM50	17.8(18.4)	4.2(5.2)	0.00(0.00)	$Ca_{1.69}Al(OH)_6(C_{12}H_{25}SO_4)_{0.39}$

[a] $Ca_2Al(OH)_6(C_{12}H_{25}SO_4)_1(H_2O)_{1.0}$ would have calc (C%) = 29.2%. We have attributed the excess carbon to an additional 10% $Ca(C_{12}H_{25}SO_4)_2$ as a 2nd phase (which is observed in the XRD).