

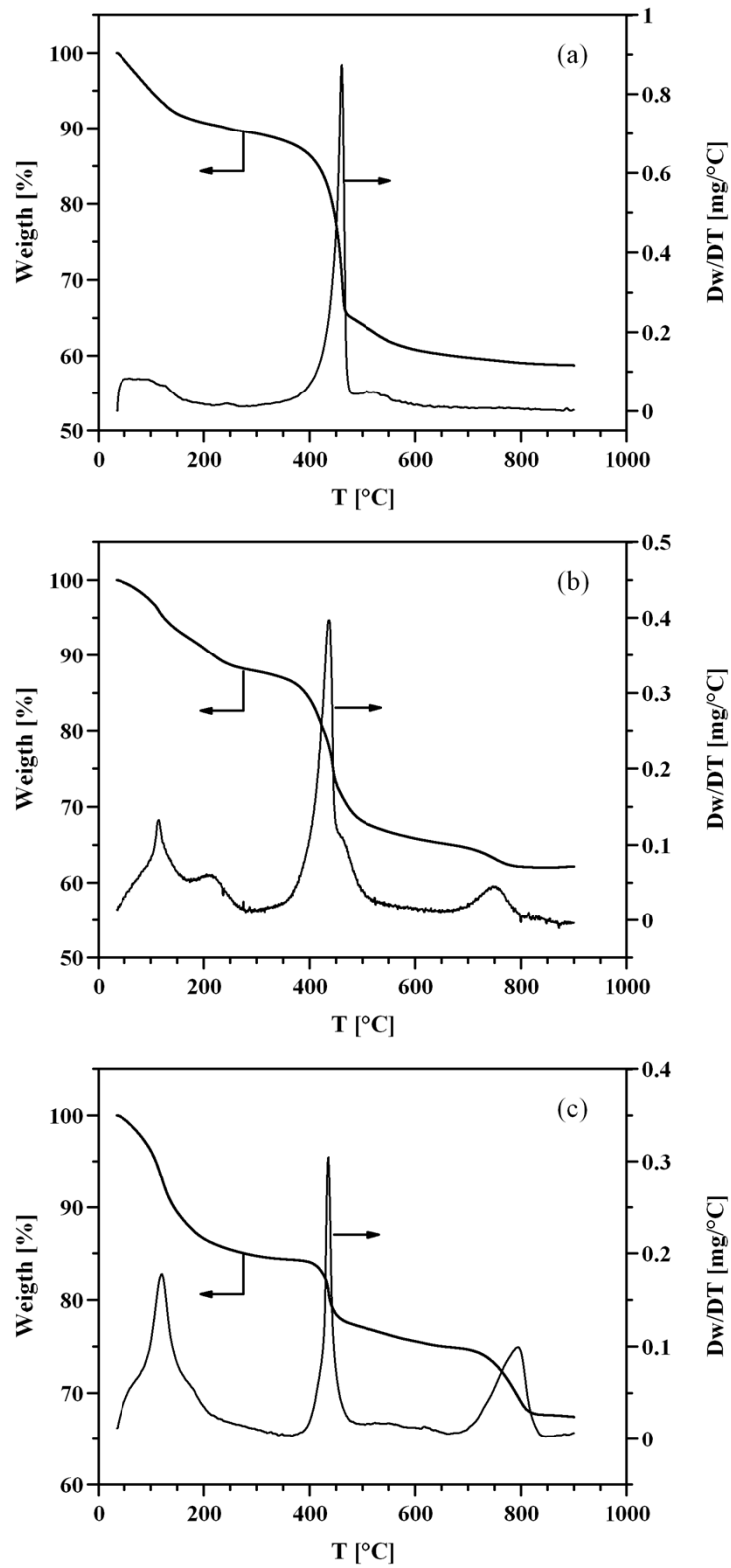
## SUPPLEMENTARY INFORMATION

### The role of boric acid in the synthesis of Eni Carbon Silicates

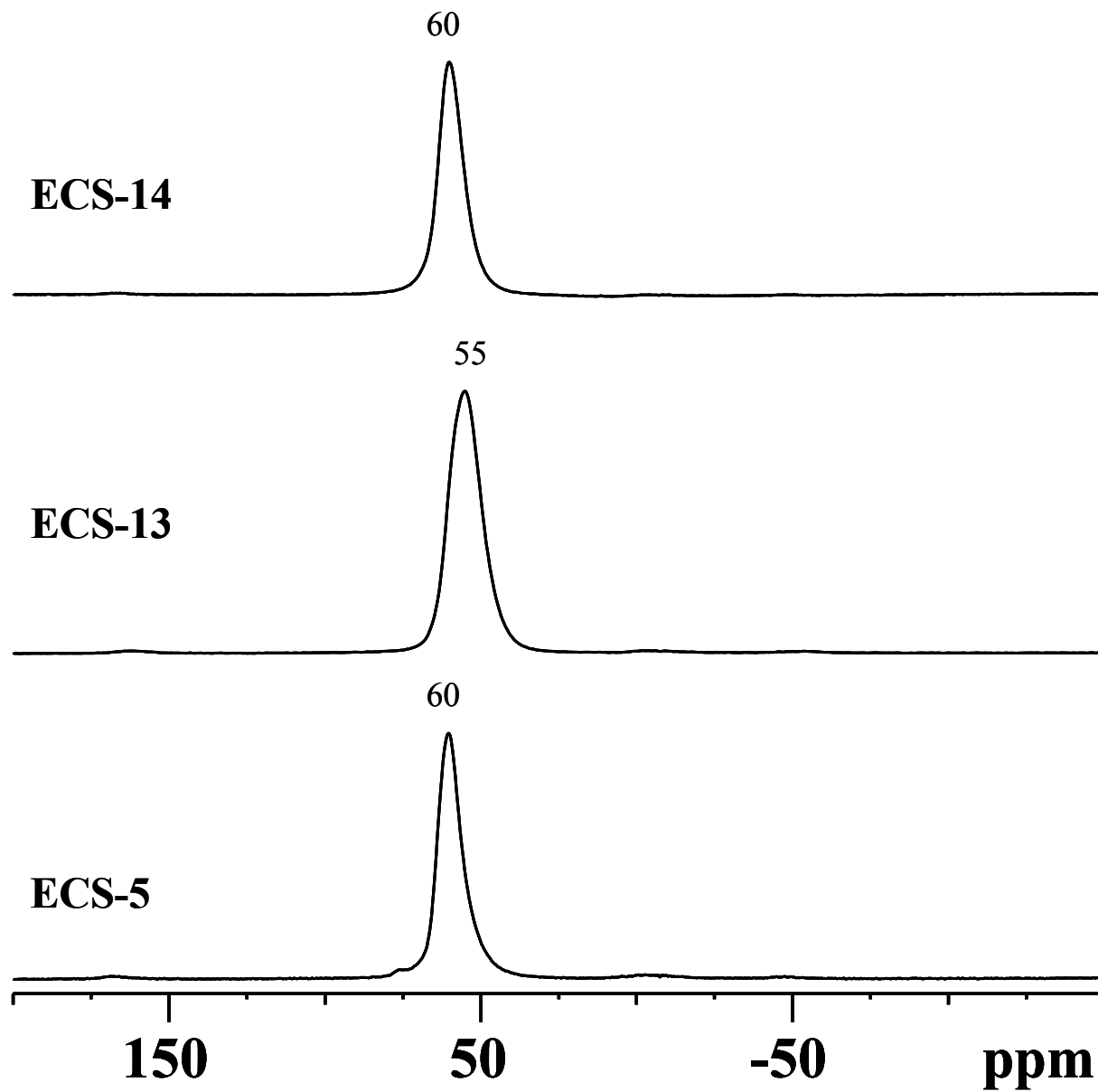
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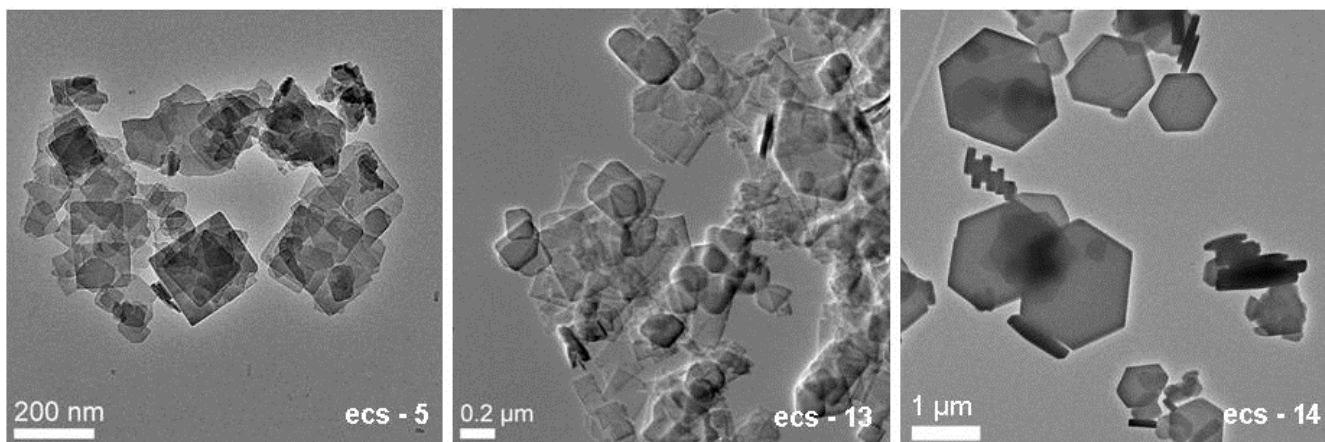
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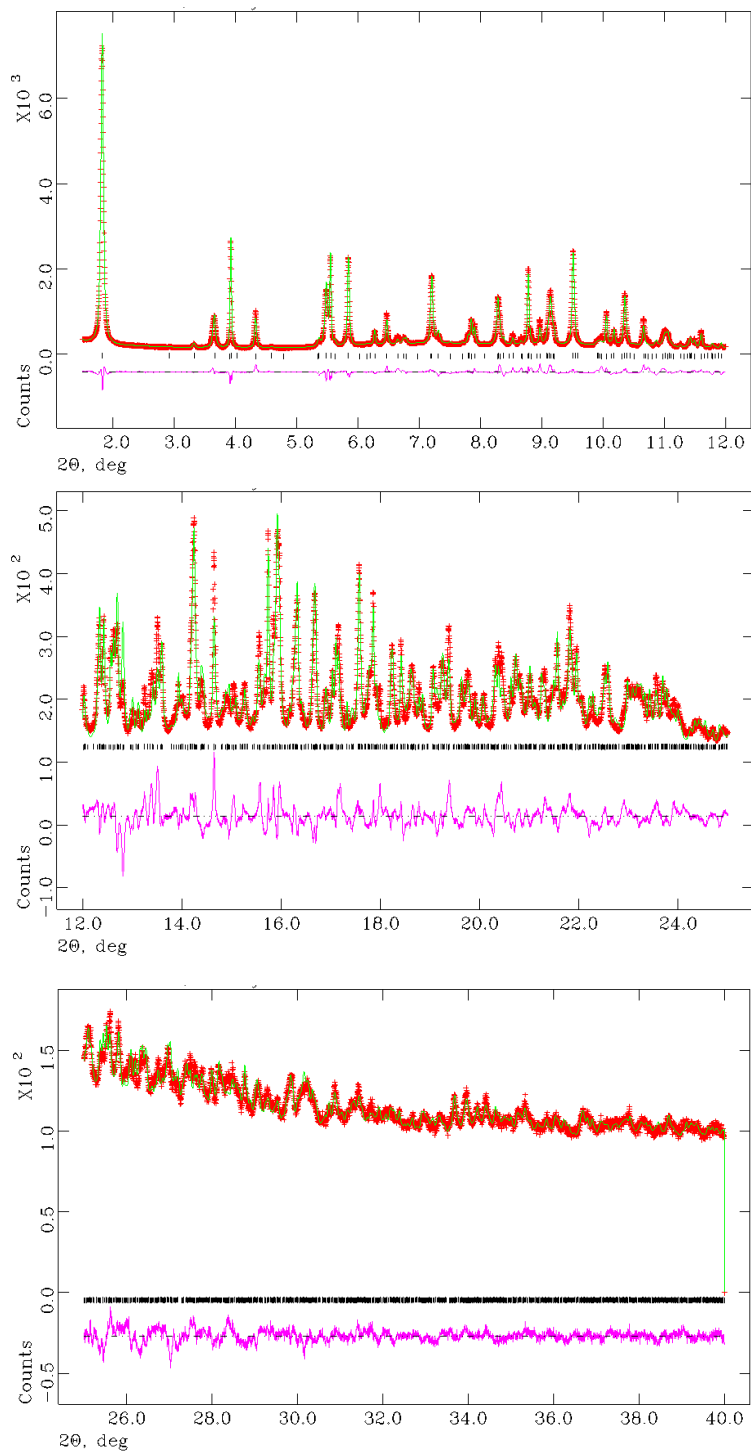
**Figure S1.** TG and DTG profiles collected on (a) ECS-5, (b) ECS-13 and (d) ECS-14 samples.



**Figure S2.**  $^{27}\text{Al}$  MAS NMR spectra of the crystalline hybrids.



**Figure S3.** TEM micrographs of the crystalline hybrids ECS-5, ECS-13 and ECS-14.



**Figure S4.** Observed (+), calculated (—), and difference (—) profiles for ECS-13 Rietveld refinement. The higher angle data are vertically expanded by a factor of one hundred to show more details.

**Table S1.** Selected bond distances for ECS-13.

Na1-O1 ×4	1.664(6)	Na4 - O7	2.883(9)
Na1-W2 ×4	2.90(3)	Na4 - O2	2.999(8)
Na2-O7 ×4	1.742(7)	Na4 - O6	3.078(9)
		Na4 - W2	2.595(3)
Na3-W1	2.89(1)	Na5 - O8	2.581(8)
Na3-O5 ×2	3.14(1)	Na5 - O6	2.681(8)
Na3-O4 ×2	3.17(1)	Na5 - O3	3.054(9)

**Table S2.** Structural and refinement parameters for ECS-13

Crystal system	Tetragonal
Space Group	P4 <sub>2</sub> /n
<i>a</i> (Å)	10.2451(1)
<i>c</i> (Å)	31.1238(6)
<i>V</i> (Å <sup>3</sup> )	3266.8(1)
RF <sup>2</sup> (%)	9.0
R <sub>p</sub> (%)	5.1
R <sub>wp</sub> (%)	7.1
χ <sup>2</sup>	9.02
No. observations	19421
No. reflections	5693
No. parameters	156
No. of geometric restrains	72
2θ range used in the refinement (°)	1.3-40