

SUPPLEMENTARY INFORMATION

CARBORANE-LAYERED DOUBLE HYDROXIDE NANOHYBRIDS FOR POTENTIAL TARGETED- AND MAGNETICALLY TARGETED-BNCT APPLICATIONS

Ahmet Nedim Ay,^{*a} Hande Akar,^a Adnana Zaulet,^b Clara Viñas,^b Francesc Teixidor^b and Birgul
Zumreoglu-Karan^a

^aDepartment of Chemistry, Hacettepe University, Beytepe Campus, 06800 Ankara, Turkey. E-Mail: ay@hacettepe.edu.tr

^bInstitut de Ciència de Materials de Barcelona (ICMAB-CSIC), Campus UAB, 08193, Bellaterra, Barcelona, Spain.

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Fig. S1.a. The length distance between Pt and the H(12) bonded *exo*-cluster to the antipodal B(12) vertex of the anion [1-S-1,2-*closo*-C₂B₁₀H₁₁]⁻ in the complex [Pt(1-S-1,2-*closo*-C₂B₁₀H₁₁)₂(bipy)] is 7.295 Å.¹ b) The length distance between Cu and the H(12) bonded *exo*-cluster to the antipodal B(12) vertex of the anion [1-COO-2-CH₃-1,2-*closo*-C₂B₁₀H₁₀]⁻ in the complex [Cu(1-COO-2-CH₃-1,2-*closo*-C₂B₁₀H₁₀)₂(py)₂(H₂O)] is 8.451 Å.² c) The length distance between two Zn atoms bonded to the two carboxylic group of the dianion [1,12-(COO)₂-1,12-*closo*-C₂B₁₀H₁₀]⁻ in the complex [Zn₃(OH)(1,12-(COO)₂-1,12-*closo*-C₂B₁₀H₁₀)_{2.5}(DEF)₄]_n is 11.481 Å.³

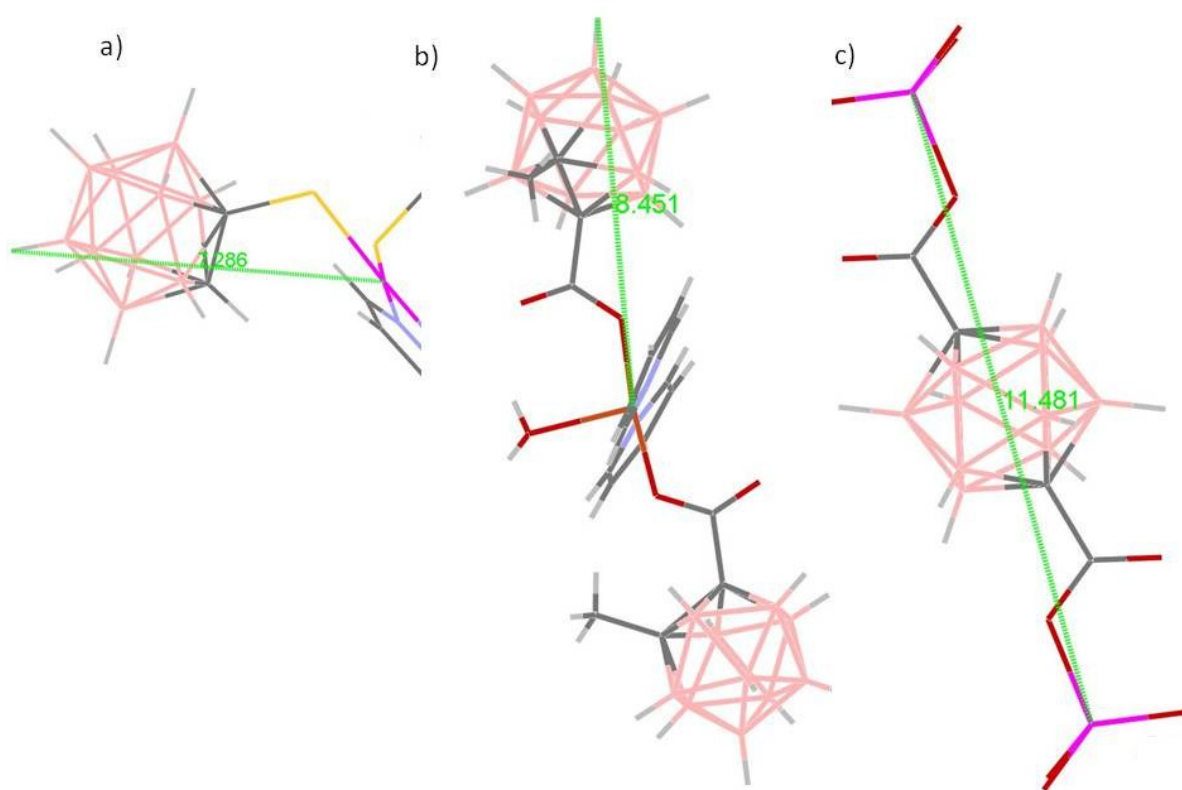
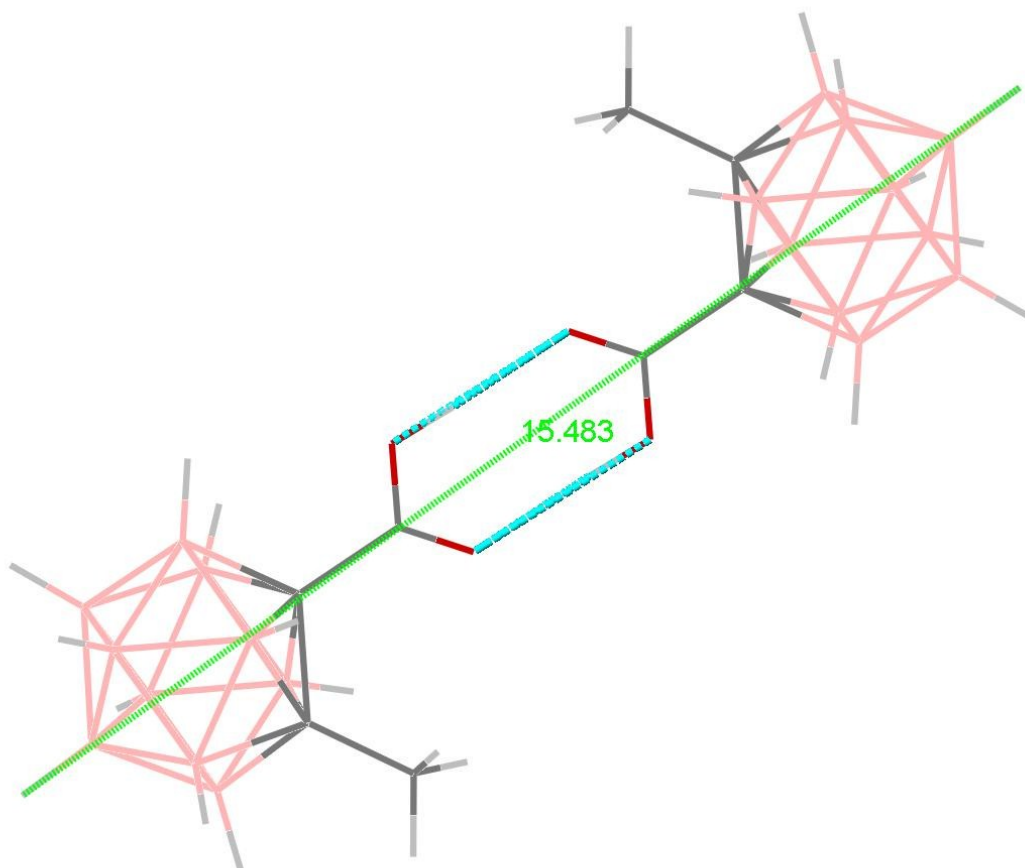


Fig. S1.b. The length distance between the two H(12) atoms bonded *exo*-cluster to the antipodal B(12) vertex of the dimeric compound is 15.483 Å.⁴



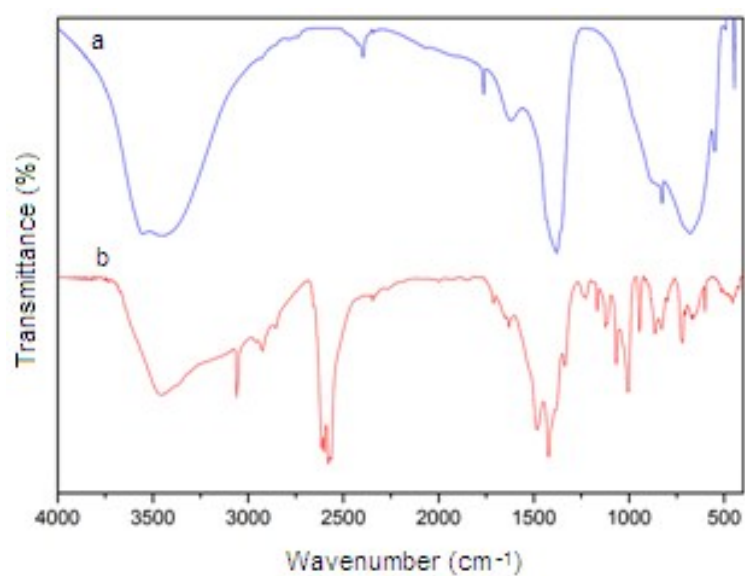


Fig. S2. FTIR spectra of a) NO₃-LDH and b) SCB-LDH samples.

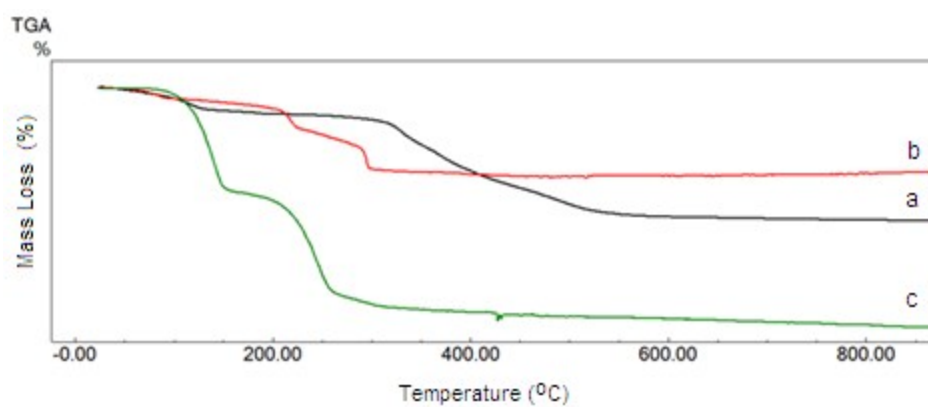
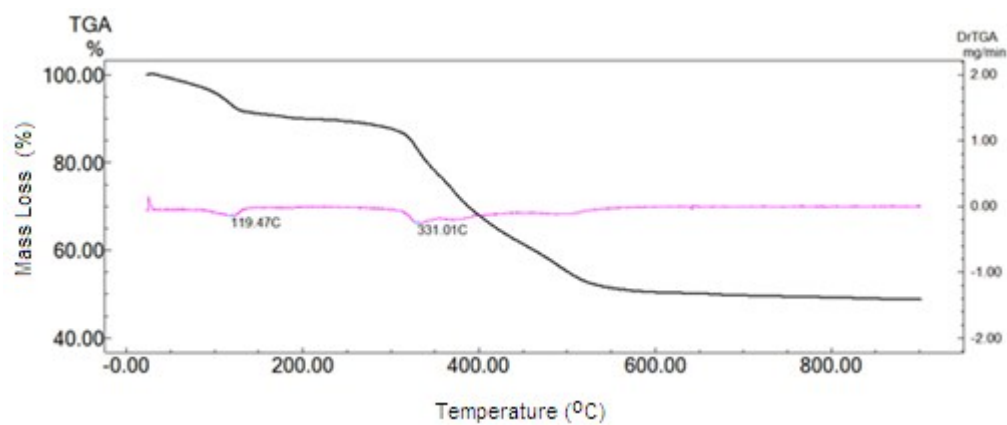


Fig. S3.a TGA curves for a) NO₃-LDH, b) SCB-LDH and c) SCB samples.



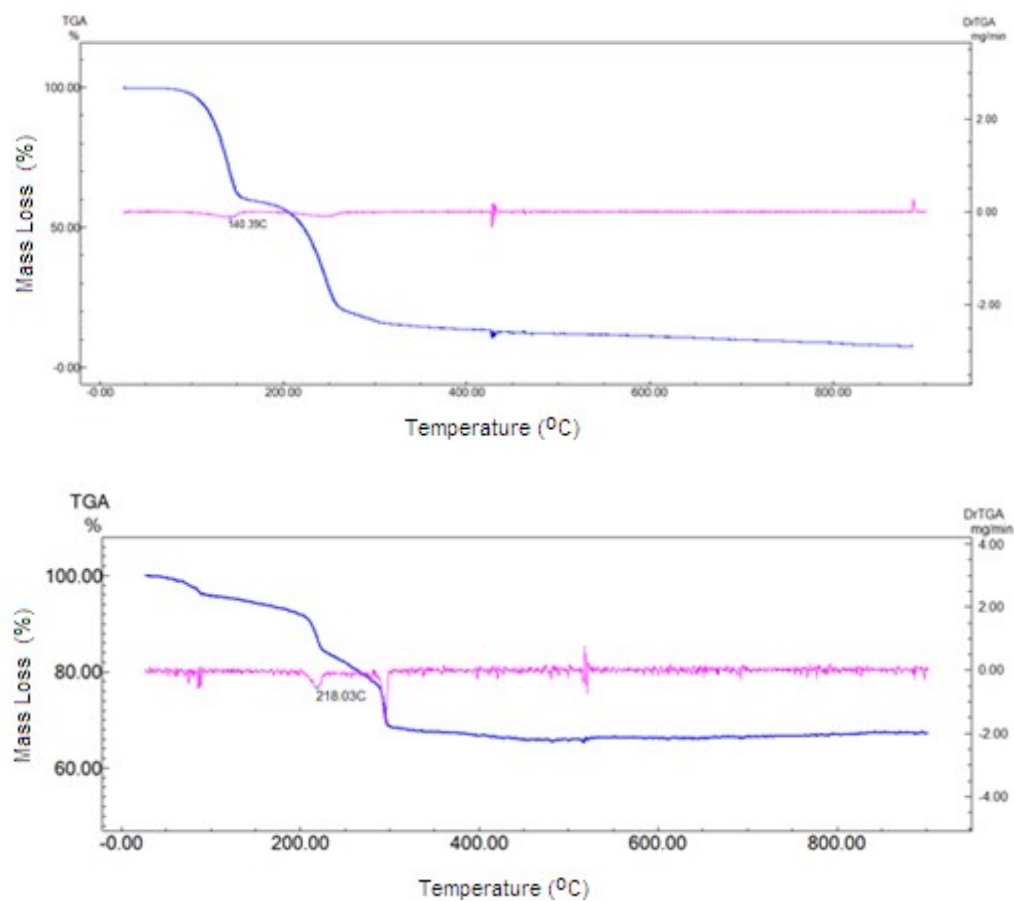


Fig. S3.b. TGA and DTG curves for NO₃-LDH (top), SCB (middle) and SCB-LDH (bottom) samples.

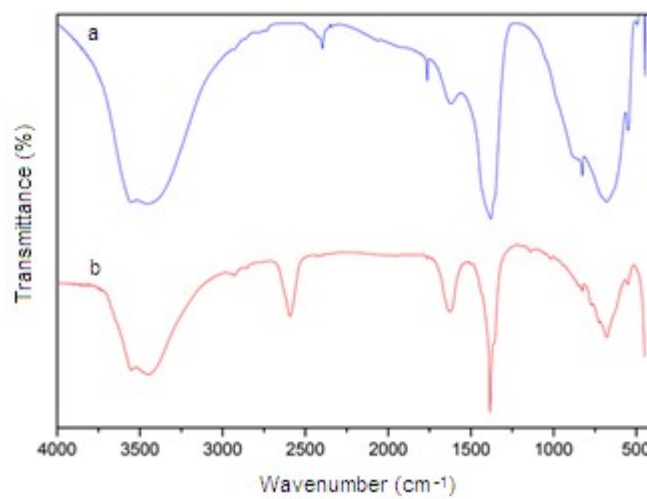


Fig S4. FTIR spectra of a) NO₃-LDH, b) MeCB-LDH samples.

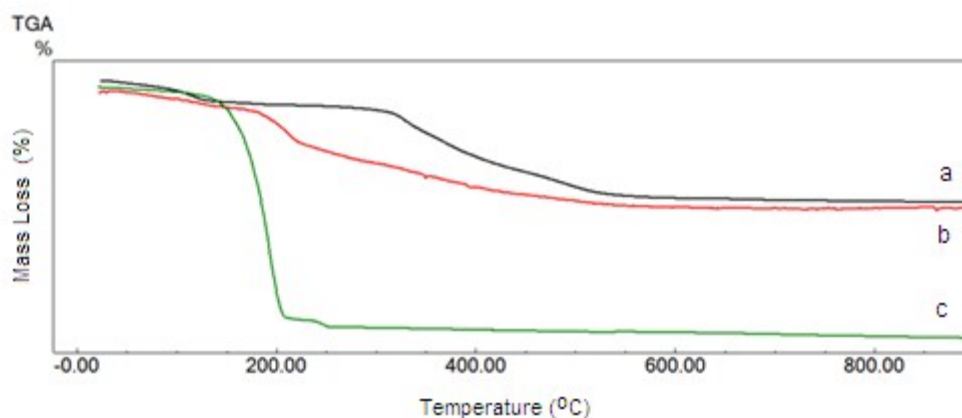


Fig. S5. TGA curves for a) NO₃-LDH, b) MeCB-LDH and c) MeCB samples.

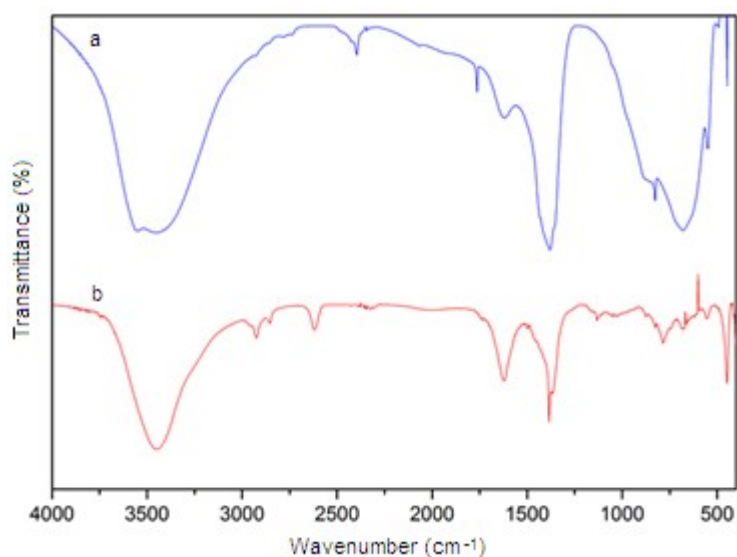


Fig S6. FTIR spectra of a) NO₃-LDH, b) COOHCB-LDH samples.

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