

# Encapsulation of Astatide by a water cage

Sara Gómez,<sup>‡</sup> Elizabeth Florez,<sup>†</sup> Nancy Acelas,<sup>†</sup> Cacier Hadad,<sup>¶</sup>  
and Albeiro Restrepo<sup>¶</sup>

<sup>‡</sup>*Scuola Normale Superiore, Classe di Scienze, Piazza dei Cavalieri 7, 56126, Pisa, Italy*

<sup>†</sup>*Grupo de Materiales con Impacto, Mat&mpac. Facultad de Ciencias Básicas, Universidad de Medellín, Medellín, Colombia*

<sup>¶</sup>*Instituto de Química, Universidad de Antioquia UdeA, Calle 70 No. 52-21, Medellín, Colombia*

\*Correspondence: [elflorez@udem.edu.co](mailto:elflorez@udem.edu.co), [albeiro.restrepo@udea.edu.co](mailto:albeiro.restrepo@udea.edu.co)

## Supplementary information

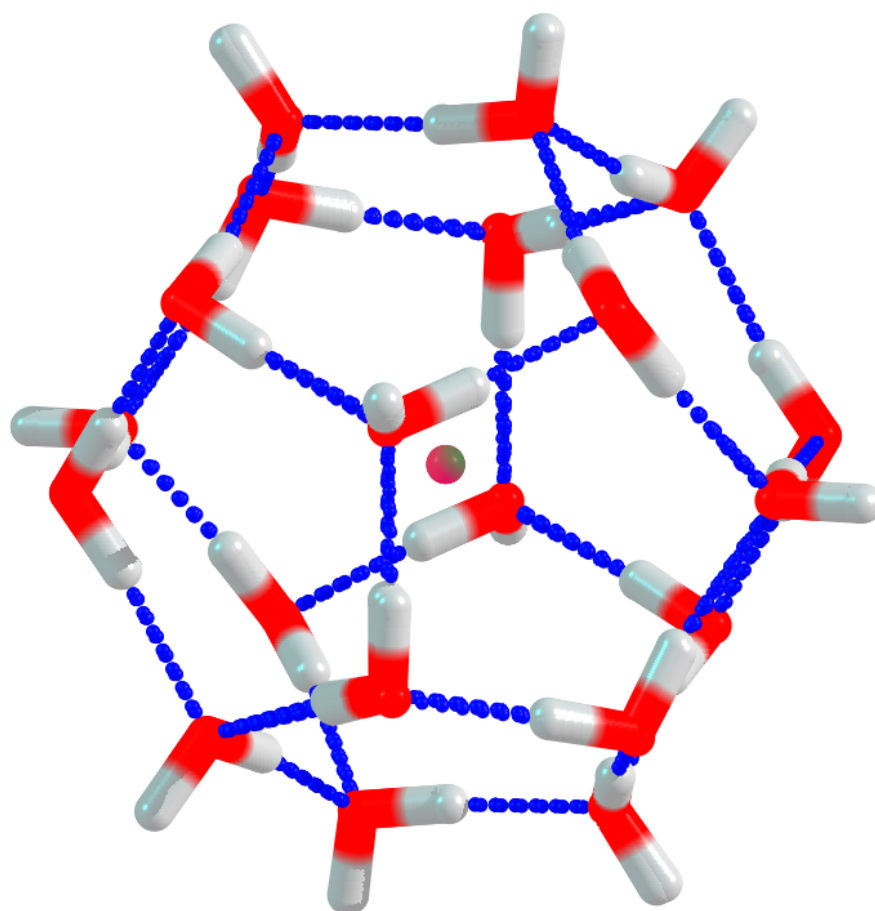


Figure S1: Virtually identical geometries whose differences are shown as shadows and color changes are obtained via our standard DFT calculations and scalar ZORA and spin-orbit ZORA calculations with WB97X and the TZ2P basis set.

feb 11, 23 22:26

coordinates\_atw20.xyz

Page 1/1

```
61
system s512_at_def2tzvppd2_optimized
O 1.050049 0.609907 3.747588
H 0.129497 0.343907 3.562489
H 1.176012 1.434915 3.215649
O -1.144223 3.592943 1.011393
H -1.361396 4.526947 1.102416
H -1.028711 3.450564 0.028521
O 1.435067 2.922150 2.235643
H 0.564280 3.047623 1.810576
H 1.989101 2.535511 1.530831
O -1.717703 -0.250175 3.458652
H -2.159126 -0.487237 4.281412
H -1.748711 -1.059923 2.899787
O -3.131545 1.782066 1.924709
H -2.616904 1.093874 2.386647
H -2.444860 2.398402 1.593401
O -1.964100 -2.632826 2.007101
H -2.458969 -3.368224 2.384126
H -2.441736 -2.389561 1.166948
O -3.988155 0.509971 -0.380489
H -3.658880 0.975326 0.431317
H -3.422934 0.832154 -1.114567
O -3.347668 -2.020016 -0.228765
H -3.550068 -1.021810 -0.265195
H -4.188345 -2.457637 -0.398510
O 2.506215 -1.338897 2.645748
H 3.056540 -1.595194 3.393312
H 1.937161 -0.581212 2.988794
O -0.809942 3.395062 -1.670419
H 0.096072 3.033290 -1.712963
H -1.375758 2.650411 -1.969052
O 3.986541 -0.501566 0.382589
H 3.658606 -0.967001 -0.429771
H 3.421762 -0.826087 1.116215
O 1.964097 2.631588 -2.009145
H 2.457248 3.368786 -2.384860
H 2.439630 2.390325 -1.167059
O 3.342432 2.027281 0.231772
H 3.544387 1.028757 0.268747
H 4.185893 2.463784 0.390483
O 0.812729 -3.395569 1.670813
H -0.092607 -3.032330 1.712341
H 1.379701 -2.651994 1.970311
O -2.506269 1.339410 -2.648191
H -3.053187 1.599538 -3.396999
H -1.939864 0.579733 -2.991417
O 3.136772 -1.776598 -1.923906
H 2.615240 -1.091991 -2.383751
H 2.456108 -2.399236 -1.592435
O 1.710128 0.245109 -3.458268
H 2.161665 0.483283 -4.275250
H 1.739708 1.052623 -2.896480
O 1.153299 -3.593680 -1.007053
H 1.350538 -4.531376 -1.104665
H 1.037238 -3.455066 -0.023299
O -1.056070 -0.614457 -3.750151
H -0.135469 -0.344889 -3.570574
H -1.177207 -1.435581 -3.210858
O -1.425709 -2.915346 -2.220303
H -0.553589 -3.036859 -1.796595
H -1.978931 -2.526002 -1.516397
At -0.000667 -0.001899 -0.002214
```