## **Supplementary Information**

## A. Electronic band structures

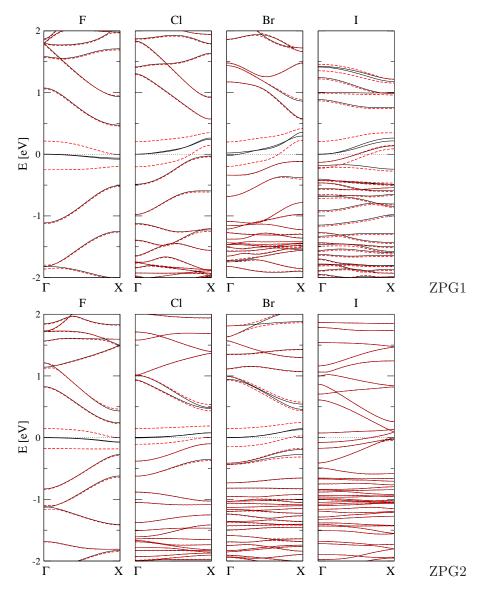


Figure S1: Electronic band structures of ZPG1 and ZPG2: spin unpolarized (black/solid) vs. spin polarized (red/dashed) calculations.

## **B.** Spin density maps

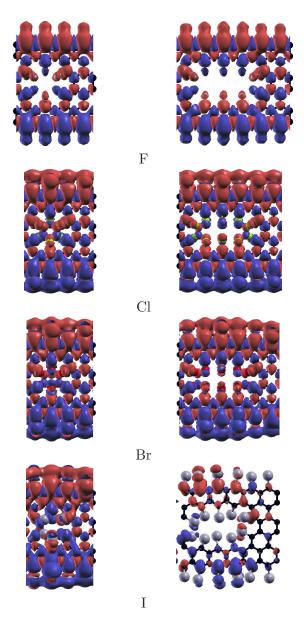


Figure S2: Spin density maps for ZPG1 (left) and ZPG2 (right).