

## Electronic Supplementary Information For

### Intrinsic Magnetism and Electronic Structure of Graphene-like $\text{Be}_3\text{C}_2$

#### Nanoribbons and Their Si, Ge Analogues: A Computational Study

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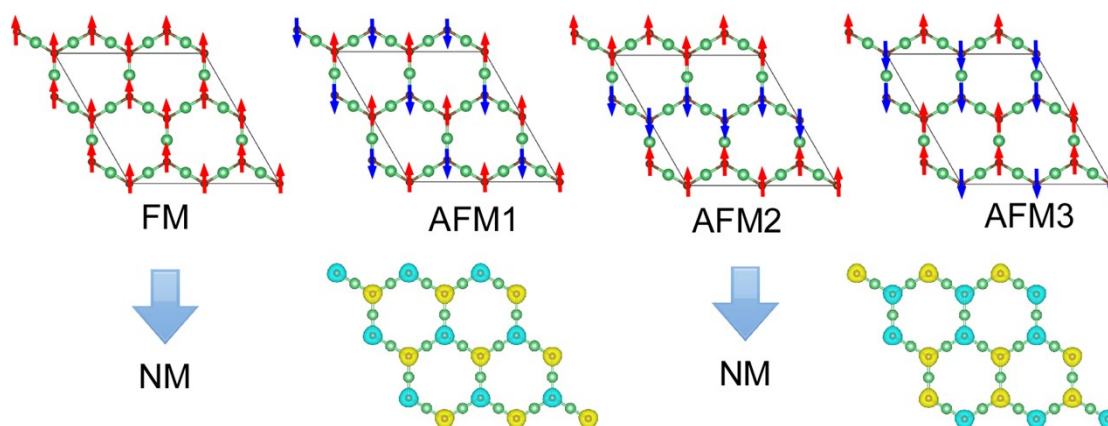


Figure S1: Four types of magnetic configurations considered in the supercell calculations. Following the previous study<sup>[1]</sup>, these magnetic configurations are constructed for the initial spin arrangements, which are the ferromagnetic (FM) and antiferromagnetic Néel (AFM1), zigzag (AFM2), and stripy (AFM3) ones. After the self-consistent calculations, both the FM and AFM2 configurations are unstable and will converge to the nonmagnetic (NM) state. The AFM1 and AFM3 configurations are still preserved during the calculation, whose spin charge densities are displayed below them.

[1]. B. L. Chittari, Y. Park, D. Lee, M. Han, A. H. MacDonald, E. Hwang and J. Jung, Phys. Rev. B, 2016, **94**, 184428