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Supporting Information

For

Robust Magnetic Domains in Fluorinated ReS₂ Monolayer

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A. Vibrational Frequencies



Figure S1. Vibrational frequencies of fluorinated ReS₂ in the [4 F@Above A],[4 F@Above B], [2 F@Above A],[4 F@Bet],and [2 F@Bet] configurations.

B. [4 F@Above A]: Initial AFM Spin Configurations





 AFM_3

Figure S2. Initial AFM configurations for [4 F@Above A]. The red upwards-pointing and blue downwards-pointing arrows denote the spin-up and spin-down states, respectively.

C. Spin-Polarized Atomic-Projected Band Structure



Figure S3. Spin-polarized atom-projected band structure of (a)(b) [4 F@Above A], (c)(d) [4 F@Above B], and (e)(f) [2 F@Above A]. Points in red and blue refer to contribution from Re and S atoms, respectively. The size of the data points indicates the spectral weight. Zero is taken to be Fermi energy.