

## Supplementary Information

### Structures, electronic properties, and superconductivity of alkaline-earth metal doped phenanthrene and charge transfer characteristics in metal doped phenanthrene

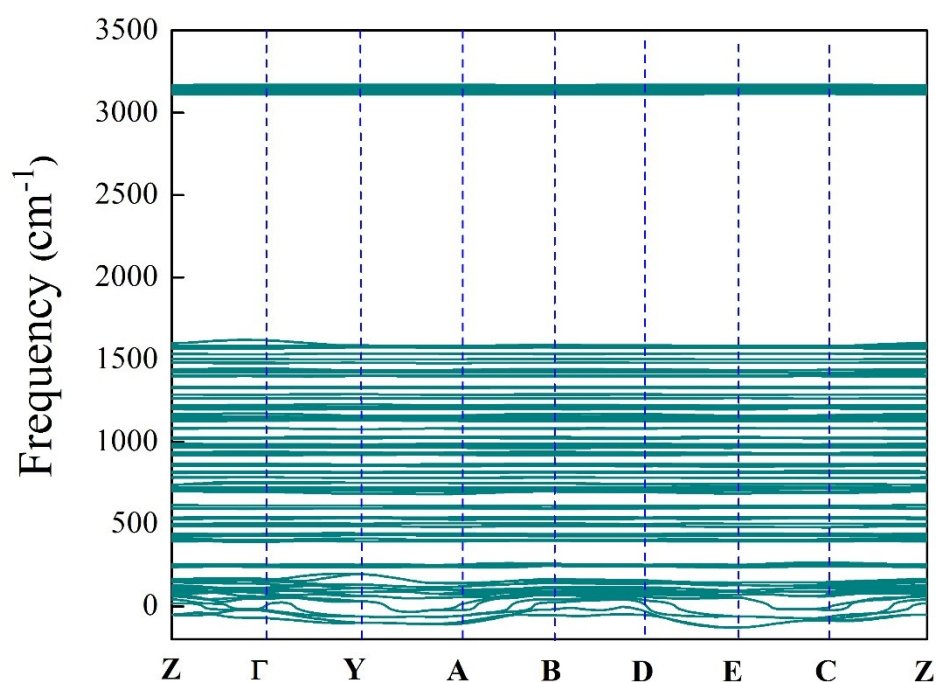
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**Fig. S1** Calculated phonon spectrum along high-symmetrical k-point paths of pure phenanthrene.