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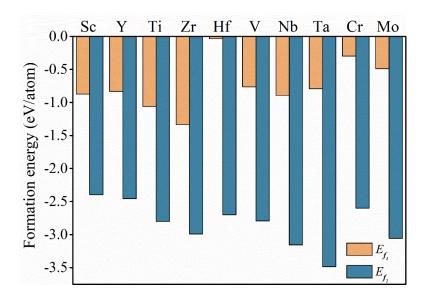
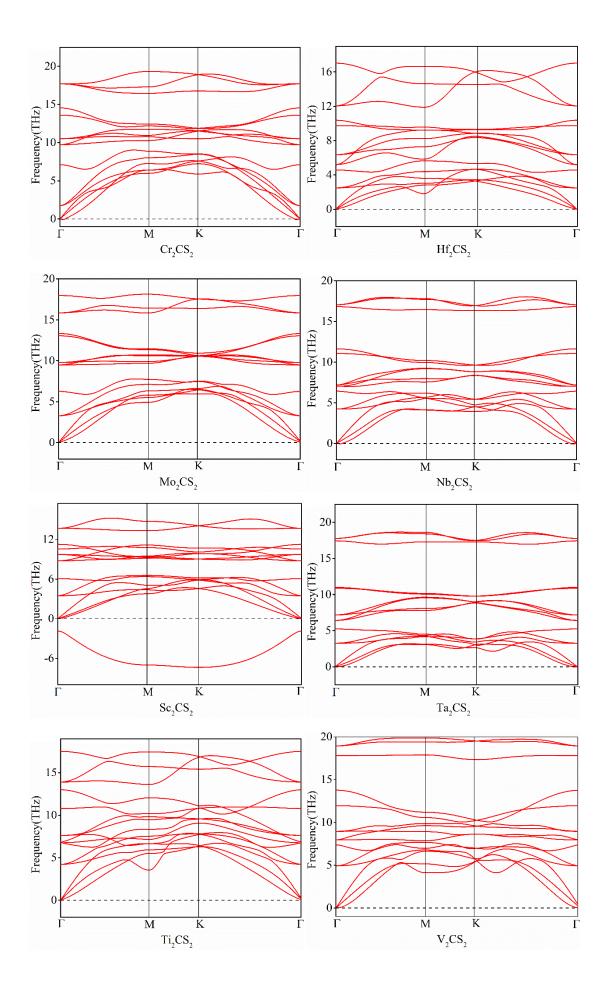


Fig. S1 Calculated formation energies of the most stable  $M_2CS_2$ .



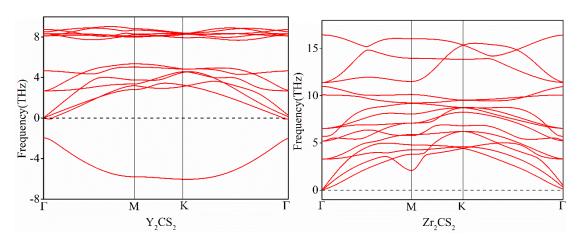


Fig. S2 Phonon dispersion curves for the most stable  $M_2CS_2$ .

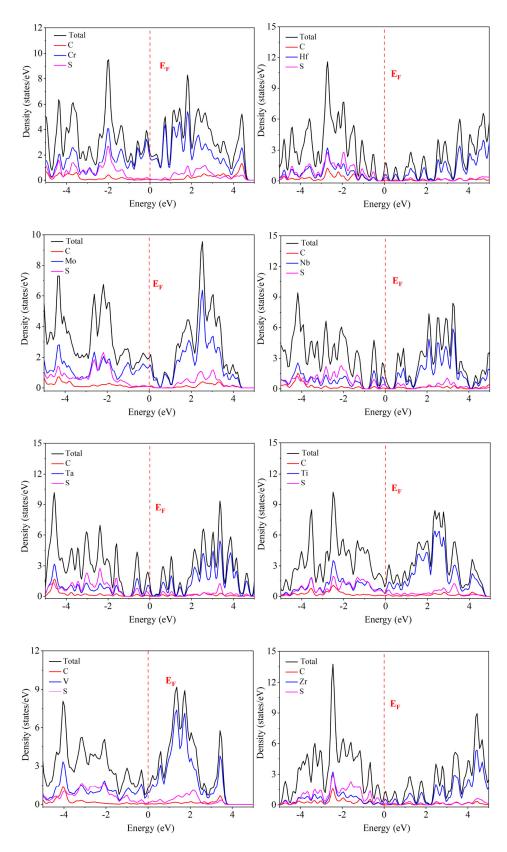


Fig. S3 Total and partial density of states of M<sub>2</sub>CS<sub>2</sub>

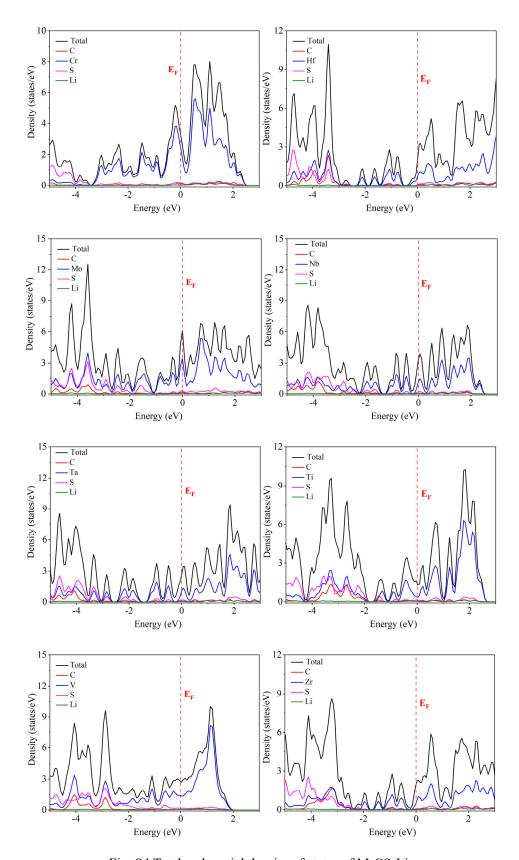


Fig. S4 Total and partial density of states of M2CS2Li2

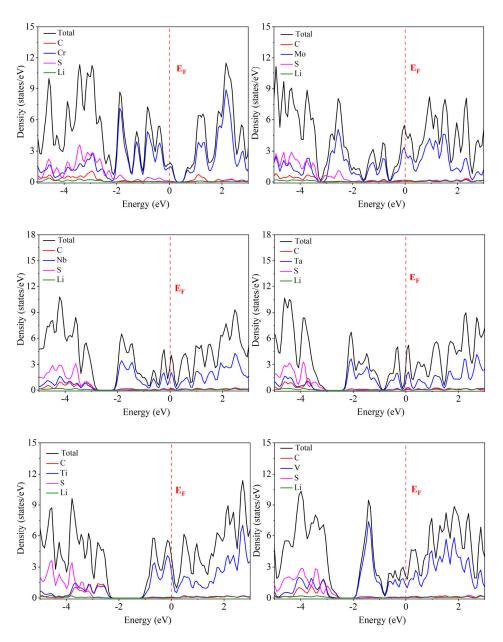


Fig. S5 Total and partial density of states of M2CS2Li4