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RESEARCH ARTICLE

Strain-tunable electronic properties and quantum capacitance of $ScHfCO_2$ MXene as supercapacitor electrodes

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Supporting Information

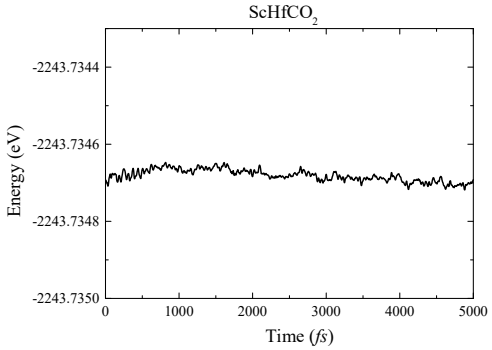
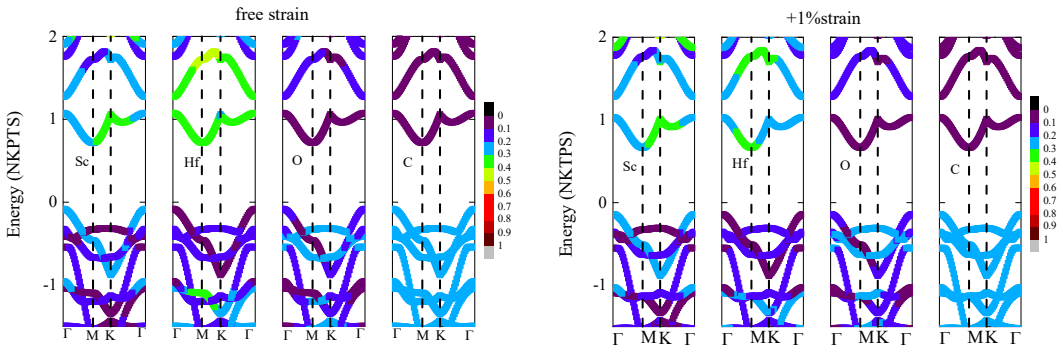
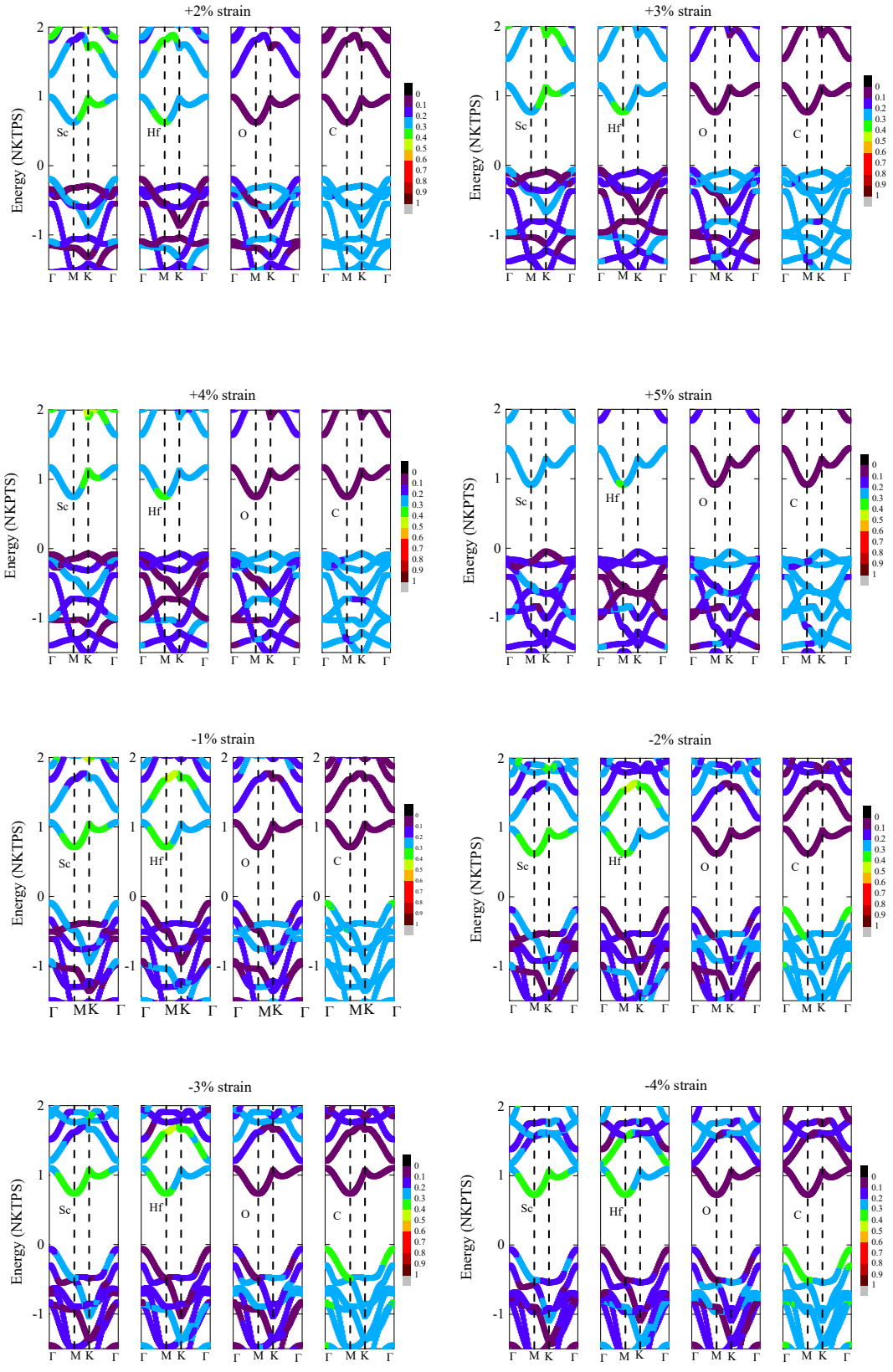


Fig. S1 The total energies of $ScHfCO_2$ as a function of time.




+2% strain
+3% strain
+4% strain
+5% strain
-1% strain
-2% strain
-3% strain
-4% strain
Energy (NKTPS)
Energy (NKPTS)
Sc
Hf
O
C
Γ M K Γ

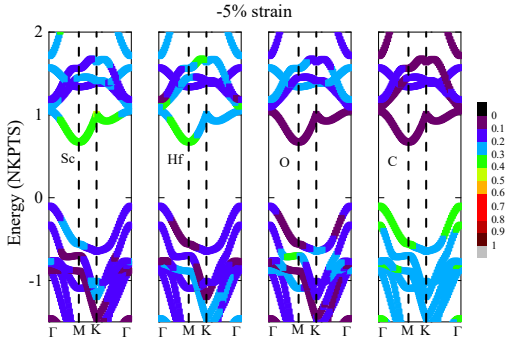


Fig. S2 Projected band structures of $ScHfCO_2$ under strains.

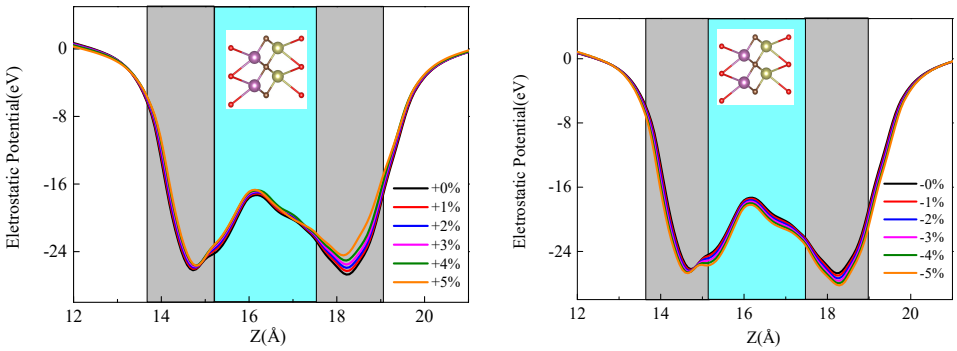


Fig. S3 Planar average electrostatic potential (PAEP) of $ScHfCO_2$ under strain along the out-of-plane direction.