NiRu-$Mo_2Ti_2C_3O_2$ as an efficient catalyst for alkaline hydrogen evolution reactions: the role of bimetallic site interactions in promoting Volmer-step kinetics

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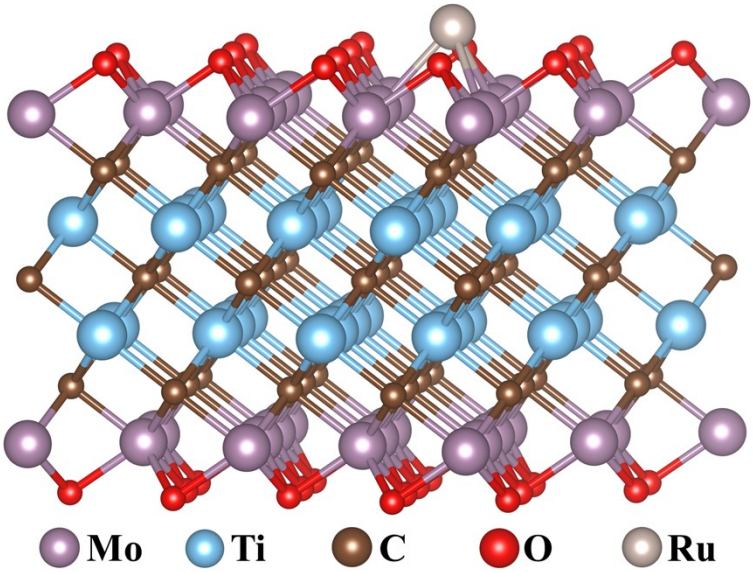

Fig. S1 Model structure diagram of Ru_s-$Mo_2Ti_2C_3O_2$

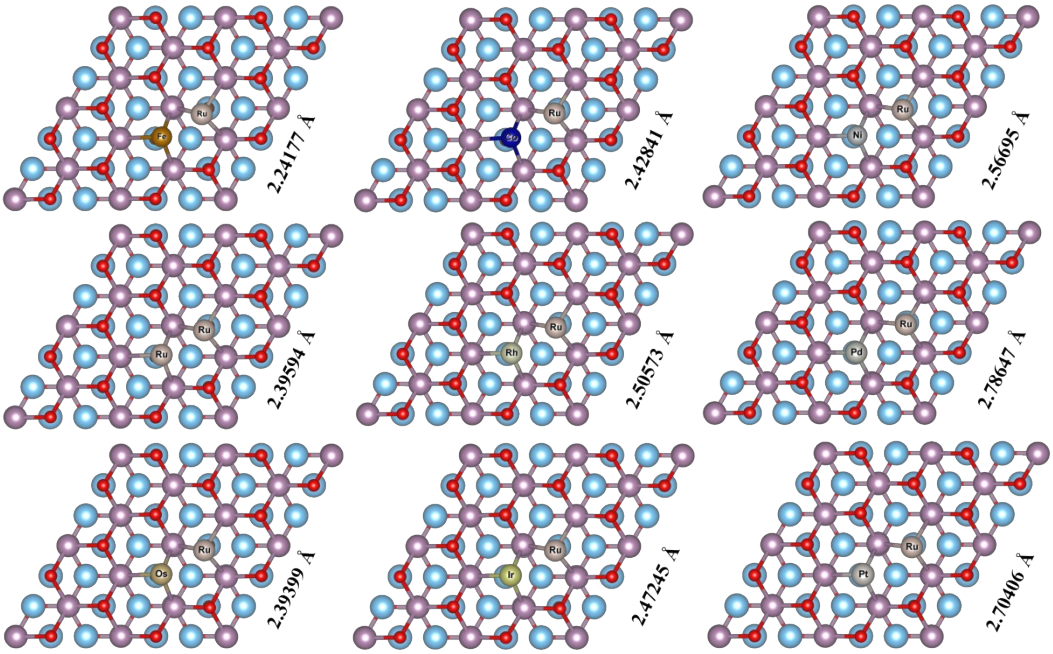

Fig. S2 Top view of Type-1 diatomic catalyst.

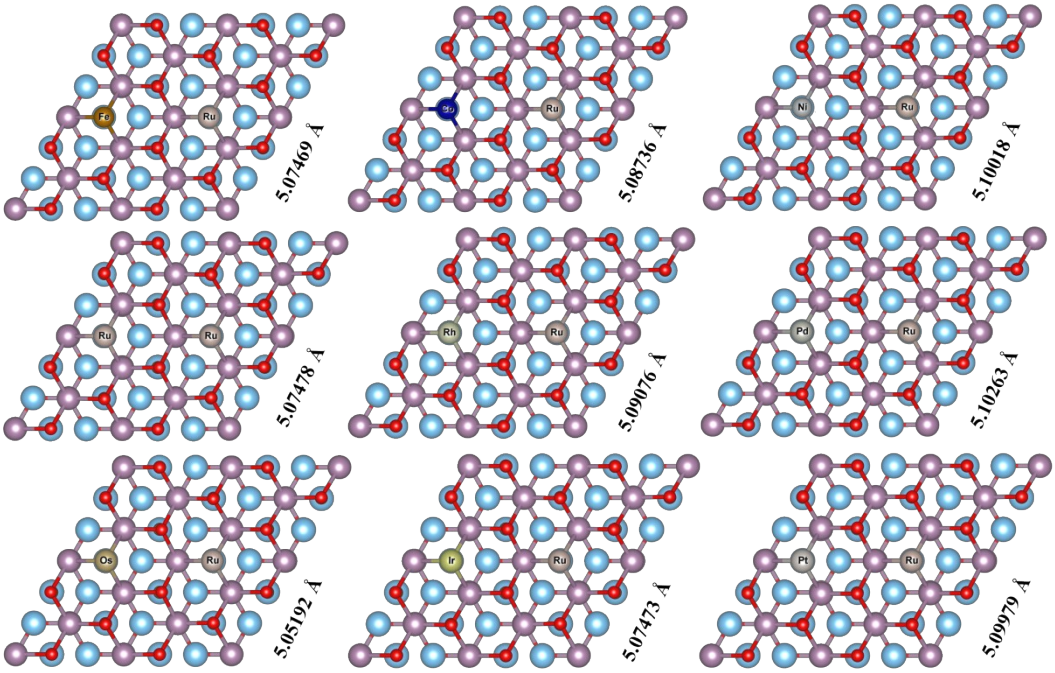

Fig. S3 Top view of Type-2 diatomic catalyst.

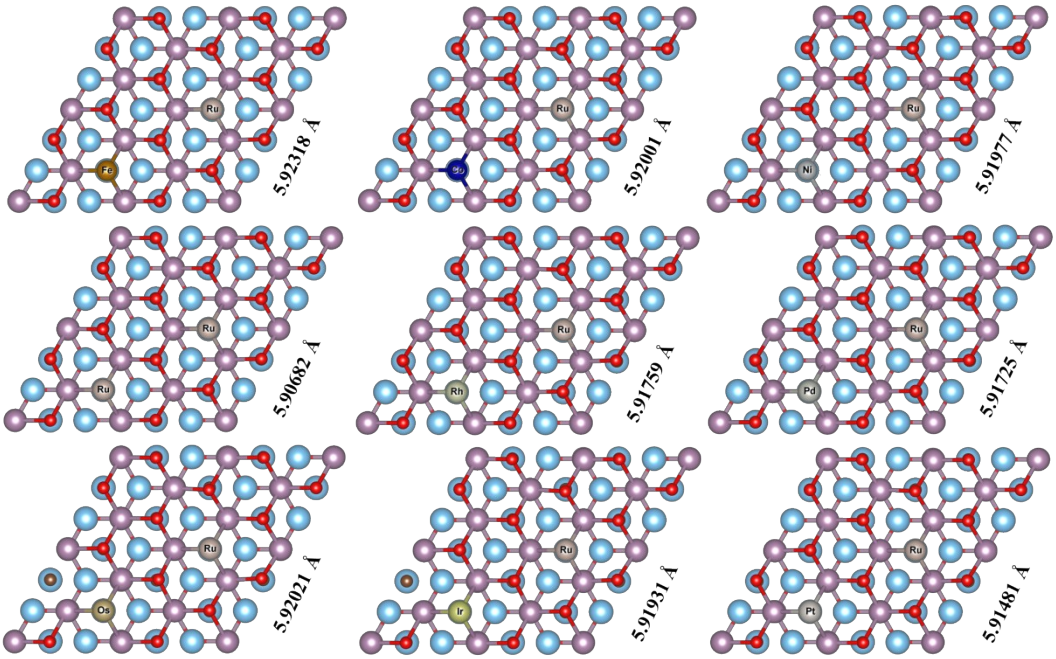

Fig. S4 Top view of Type-3 diatomic catalyst.

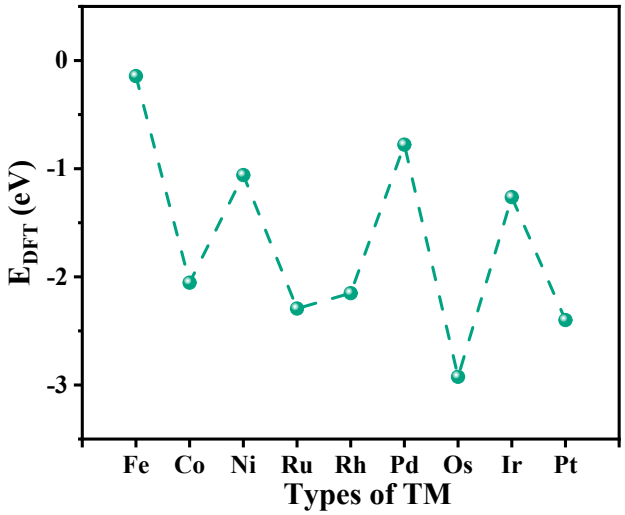

Fig. S5 The binding energy of TM_n atoms on Ru_s-$Mo_2Ti_2C_3O_2$.

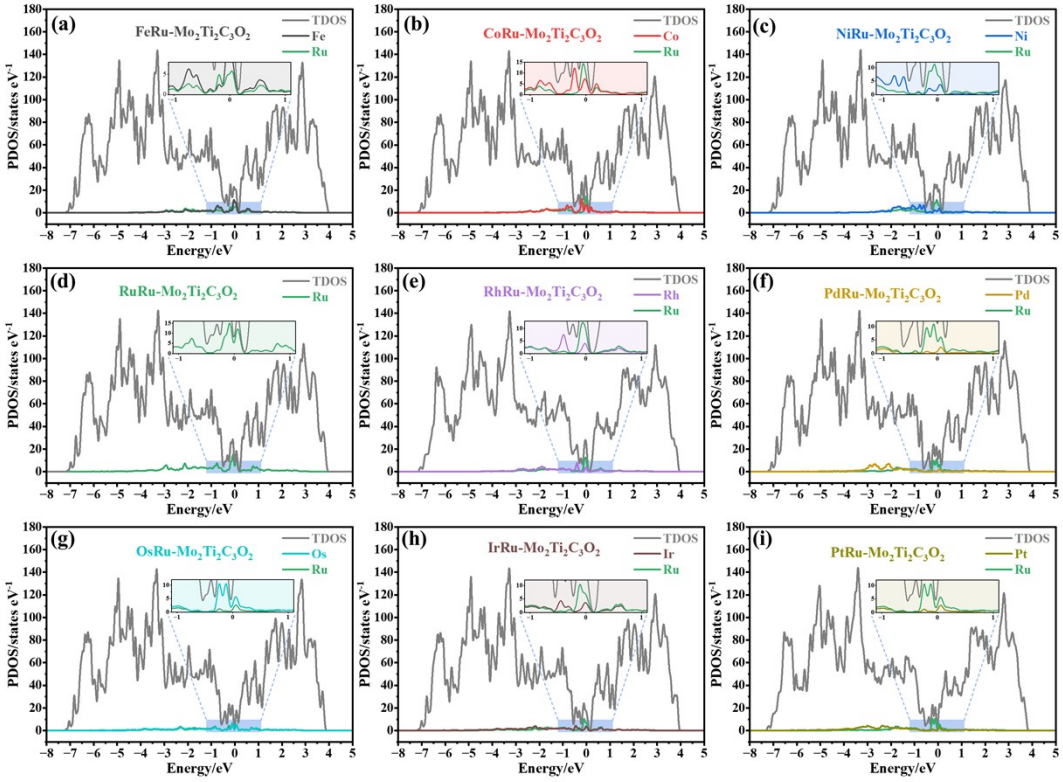

Fig. S6 PDOS diagram of TMRu-$Mo_2Ti_2C_3O_2$.

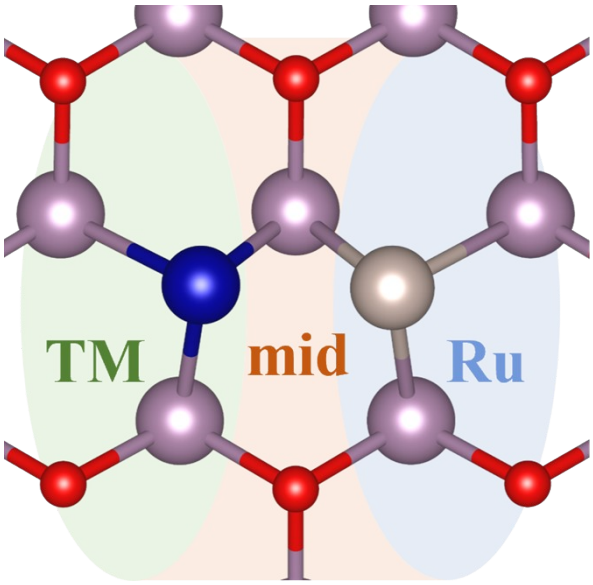

Fig. S7 TMRu-$Mo_2Ti_2C_3O_2$ surface reaction site diagram.