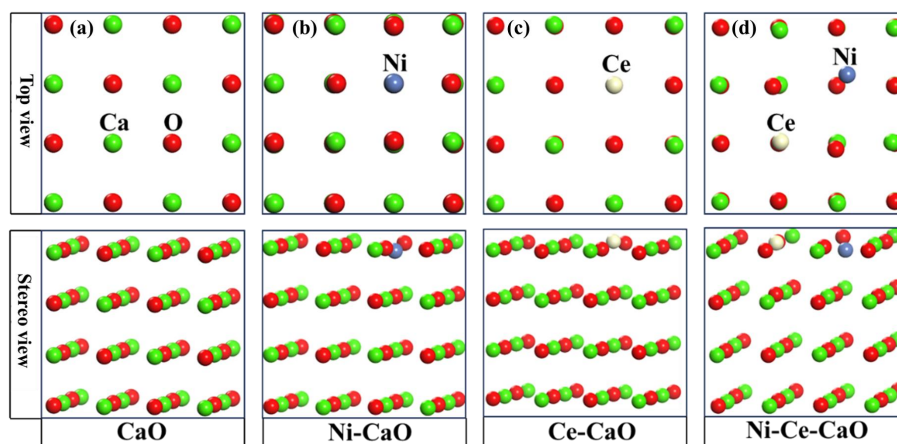




Supplementary Fig. S1. Periodic slab representations of (a) CaO, (b) Ni-CaO, (c) Ce-CaO, and (d) Ni-Ce- CaO surfaces (color scheme: green = Ca, red = O, blue = Ni, gray = Ce).