CO_2 Activation by ZnO through the Formation of an Unusual Tridentate Surface Carbonate

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Greenhouse gas "al dente": Exposure of the nonpolar ZnO $(10\bar{1}0)$ surface to CO_2 at 95 K leads to the formation of an unusual tridentate carbonate species. Use of several experimental techniques (for example, high-resolution electron energy loss spectroscopy (HREELS)) and theoretical calculations provides insight into the activation of CO_2 on the zinc oxide surface.