Supplementary Materials: Ni-Mo Sulfide Semiconductor Catalyst with High Catalytic Activity for One-Step Conversion of CO$_2$ and H$_2$S to Syngas in Non-Thermal Plasma

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**Figure S1.** XPS spectra of Mo 3d (a) and Ni 2p (b) for the 5Ni-3Mo/Al$_2$O$_3$ catalyst before and after reaction.
Figure S2. SEM images of the 5Ni-3Mo/Al₂O₃ catalyst before (a) and after (b) reaction.

Figure S3. XRD patterns of the 5Ni-3Mo/Al₂O₃ catalyst before and after reaction.