Co embedded in nitrogen-doped carbon is a selective heterogeneous catalyst for the electroreduction of $CO_2$ to form CO. The local structure of Co is similar to Co(II) phthalocyanine (see figure below). The catalyst can be labelled as Co-N-C. It is shown that the oxidation state of Co remains as Co(II) during catalysis, and the first step is the 1-e electron reduction of $CO_2$ on Co without involvement of a proton. Based on this information and what you learnt from the class, propose a mechanism of $CO_2$ reduction to CO on Co-N-C.