

**→** CO2 + \* -> CO2\* **→** CO2 + \* <- CO2\* → H2 + 2 \* -> 2 H\* — H2 + 2 \* <- 2 H\* → CO2\* + H\* <- COOH\* + \*
</p> → CO2\* + OH\* -> COOH\* + O\* ★ CO2\* + OH\* <- COOH\* + O\*</p> ★ CO2\* + H2O\* -> COOH\* + OH\* ★ CO2\* + H2O\* <- COOH\* + OH\*
</p> \* CO2\* + OH\* -> HCOO\* + O\* --- CO2\* + OH\* <- HCOO\* + O\* --- CO2\* + H2O\* -> HCOO\* + OH\* --- CO2\* + H2O\* <- HCOO\* + OH\* --- COOH\* + \* -> CO\* + OH\* --- COOH\* + \* <- CO\* + OH\* --- COOH\* + \* -> COH\* + O\* --- COOH\* + \* <- COH\* + O\* --- HCOO\* + \* -> O\* + HCO\* --- HCOO\* + \* <- O\* + HCO\* --- CO\* + \* -> C\* + O\* --- CO\* + \* <- C\* + O\* --- HCO\* + \* -> CO\* + H\* --- HCO\* + \* <- CO\* + H\* --- HCO\* + \* -> CH\* + O\* --- HCO\* + \* <- CH\* + O\* --- COH\* + \* -> CO\* + H\* --- COH\* + \* <- CO\* + H\* --- COH\* + \* -> C\* + OH\* --- COH\* + \* <- C\* + OH\* --- C\* + H\* -> CH\* + \* --- C\* + H\* <- CH\* + \* --- CH\* + H\* -> CH2\* + \* --- CH2\* + H\* -> CH3\* + \* --- CH2\* + H\* <- CH3\* + \* --- HCO\* + H\* -> CH2O\* + \* --- HCO\* + H\* <- CH2O\* + \* --- HCO\* + H\* -> HCOH\* + \* --- HCO\* + H\* <- HCOH\* + \* --- COH\* + H\* -> HCOH\* + \* --- COH\* + H\* <- HCOH\* + \* --- HCOH\* + \* -> CH\* + OH\* --- HCOH\* + \* <- CH\* + OH\* --- HCOH\* + H\* -> CH2OH\* + \* → HCOH\* + H\* <- CH2OH\* + \*</p> --- CH2OH\* + \* -> CH2\* + OH\* --- CH2OH\* + \* <- CH2\* + OH\* --- CH2OH\* + H\* -> CH3OH\* + \* --- CH2OH\* + H\* <- CH3OH\* + \* --- CH2O\* + H\* -> CH2OH\* + \* --- CH2O\* + H\* <- CH2OH\* + \* --- CH2O\* + \* -> CH2\* + O\* --- CH2O\* + \* <- CH2\* + O\* --- CH2O\* + H\* -> CH3O\* + \* --- CH2O\* + H\* <- CH3O\* + \* --- CH3O\* + \* -> CH3\* + O\* --- CH3O\* + \* <- CH3\* + O\* --- CH3O\* + H\* -> CH3OH\* + \* --- CH3O\* + H\* <- CH3OH\* + \* --- CH3OH\* + \* -> CH3\* + OH\* --- CH3OH\* + \* <- CH3\* + OH\* --- O\* + H\* <- OH\* + \* --- O\* + H\* -> OH\* + \* --- OH\* + H\* -> H2O\* + \* --- OH\* + H\* <- H2O\* + \* --- OH\* + OH\* -> O\* + H2O\* ● OH\* + OH\* <- O\* + H2O\* -- H2O + \* -> H2O\* ─ H2O + \* <- H2O\*</p> --- CH4 + 2 \* -> CH3\* + H\* --- CH4 + 2 \* <- CH3\* + H\* --- CH3OH + \* <- CH3OH\* CH3OH + \* -> CH3OH\*