The carboxyl functional group that characterizes the carboxylic acids is unusual in that it is composed of two functional groups: (1) the carboxyl group and (2) a hydroxyl group bonded to a carbonyl group. It is often written in condensed form as $-\text{CO}_2\text{H}$ or $-\text{COOH}$. Other combinations of functional groups were described previously, and significant changes in chemical behavior as a result of group interactions were described (e.g. phenol & aniline). In this case, the change in chemical and physical properties resulting from the interaction of the hydroxyl and carbonyl group are so profound that the combination is customarily treated as a distinct and different functional group.

- Nomenclature of Carboxylic Acids
- Properties of Carboxylic Acids
- Reactivity of Carboxylic Acids
Synthesis of Carboxylic Acids