nucleophilic catalysis

Catalysis by a Lewis base, involving formation of a Lewis adduct as a reaction intermediate. For example, the hydrolysis of acetic anhydride in aqueous solution catalysed by pyridine:

\[
\text{pyridine} + \text{H}_3\text{C}-\text{CO}_2\text{H} \rightarrow \text{pyridinium}^+ + \text{H}_3\text{C}-\text{CO}_2^-
\]

\[
\text{pyridinium}^+ + \text{H}_2\text{O} \rightarrow \text{pyridine} + \text{H}_3\text{C}-\text{CO}_2\text{H} + \text{H}^{+\text{aq}}
\]

See also: electrophilic, nucleophilicity

Source:
PAC, 1994, 66, 1077 (Glossary of terms used in physical organic chemistry (IUPAC Recommendations 1994)) on page 1146