

CONCEPT: NUCLEOPHILIC ADDITION OF SOLVENTS

These are reactions that are induced primarily by the extraordinary reactivity at the carbonyl carbon

- The carbonyl carbon is so reactive that it even reacts with some _____
 - Most of these mechanisms are *acid-catalyzed* — all are fully reversible in mild acid (H_3O^+).
- **Protonation** is always the first step, **deprotonation** is always the last (restores the catalyst)

