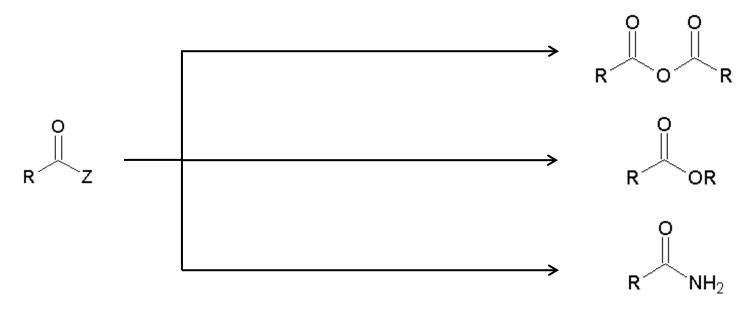
CONCEPT: NUCLEOPHILIC ACYL SUBSTITUTION – THE THREE RULES

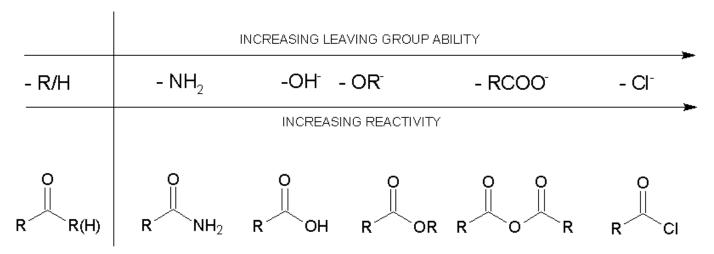
Most of the formulas governing the conversion of carboxylic acid derivatives can be simplified into the following 3 Rules:

RULE #1 The general reactions for these conversions are as follows:



RULE #2 More reactive acyl compounds can be easily ______ into less reactive ones.

The reactivity of carbonyls toward NAS depends upon the strength of the ______



RULE #3 The Carboxylic Acid Conversions

$$\begin{array}{c|c}
 & H_2O, H^+, OH^- \\
\hline
 & -Z & R
\end{array}$$

PRACTICE: Determine the major product for the following reaction.

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