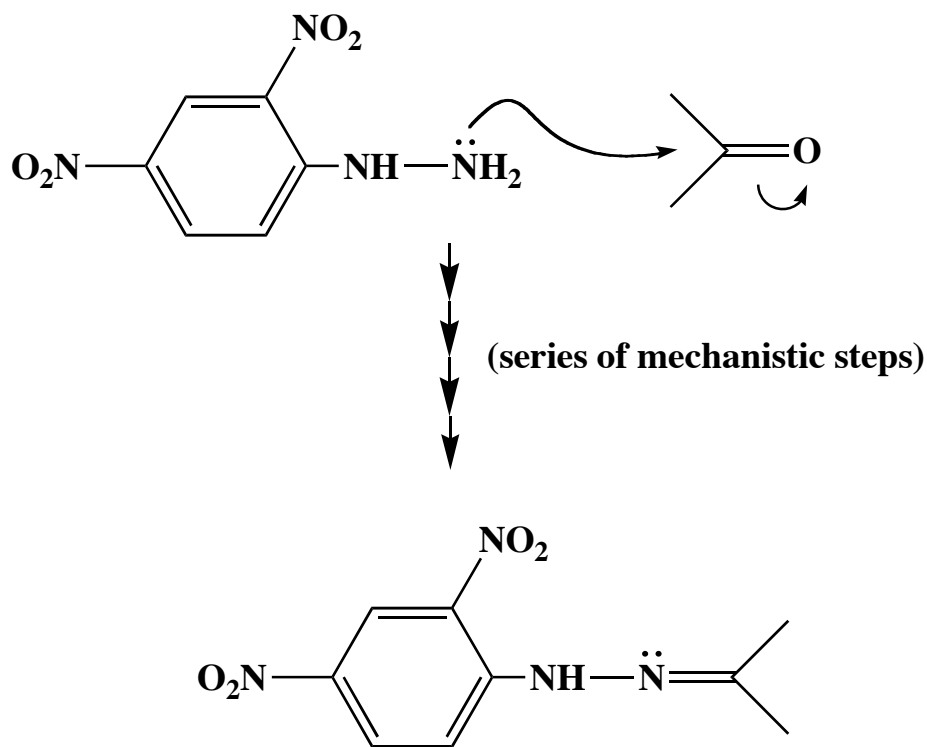


**REACTION OF ALDEHYDE OR KETONE
WITH 2,4-DINITROPHENYLHYDRAZINE**



2,4-DINITROPHENYLHYDRAZONE DERIVATIVE

WHY MAKE A DERIVATIVE?

- ALCOHOLS DO NOT REACT IN THIS WAY.
- INCREASED MOLECULAR WEIGHT AND POLARITY CONVERTS A LIQUID ALDEHYDE OR KETONE INTO A SOLID, THEREBY ALLOWING A MP TO BE TAKEN. THE MP CAN THEN BE COMPARED TO MPS OF KNOWN COMPOUNDS.
- THE COLOR OF THE DERIVATIVE MAY INDICATE WHETHER CARBONYL IS CONJUGATED OR NOT. (CONJ $\text{C}=\text{O}$ \rightarrow USUALLY RED/ORANGE. NON-CONJ $\text{C}=\text{O}$ USUALLY YELLOW)