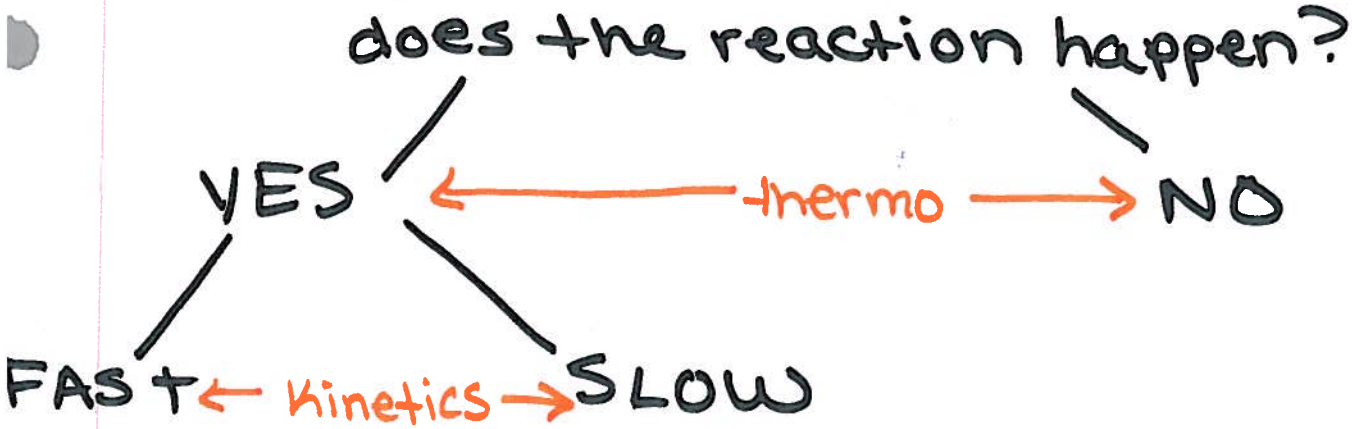
Thermo vs. Kinetics

Thermo	Kinetics
energy (heat)	Speed
Q: is a reaction GOING to happen?	Q: how FAST is the reaction?
YES NO	FAST SLOW

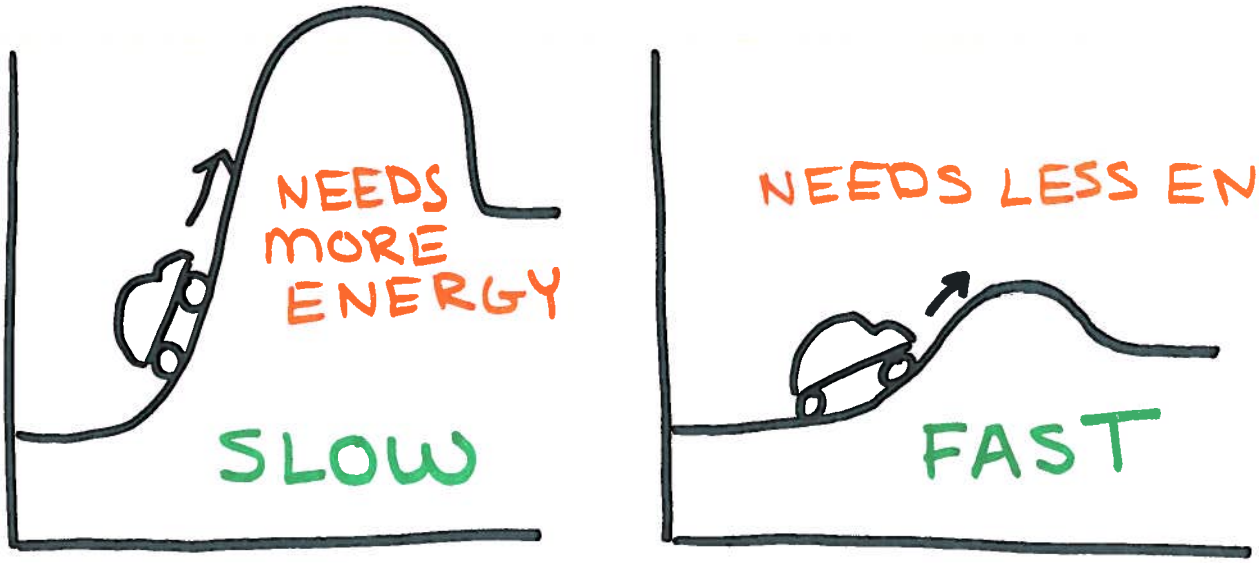
SLOW ≠ doesn't happen



	unit	equation
Speed in a car:	$\frac{\text{miles}}{\text{hour}}$	$\frac{\Delta \text{ distance}}{\Delta \text{ time}}$
in thermo: (+ −)	Joules	$mc\Delta T$, mL
in Kinetics:	$\frac{\text{molarity}}{\text{sec}}$ $\frac{M}{\text{sec}}$	$\frac{\Delta \text{ concentration}}{\Delta \text{ time}}$

$A + B \rightarrow C$

− using up reactants making more product +



This is where thermo turns into kinetics