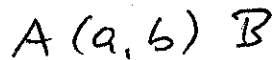
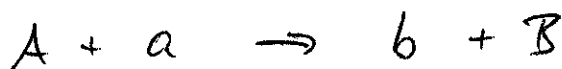


## OVERVIEW OF NUCLEAR REACTIONS

1. COULOMB EXCITATION
2. COMPOUND NUCLEUS REACTIONS
3. DIRECT REACTIONS, STRIPPING & PICKUP, OPTICAL MODEL
4. INTERMEDIATE-ENERGY SCATTERING
5. HEAVY ION REACTIONS
6. RELATIVISTIC HEAVY ION REACTIONS.

(PHENOMENA ORDERED WITH RESPECT TO INCREASING ENERGY)

NOTATION:



CROSS-SECTION:

$$\sigma \equiv \frac{\text{NUMBER OF PARTICLES EMITTED } b}{\text{NUMBER OF INCOMING PARTICLES } a \text{ PER AREA}_\perp}$$