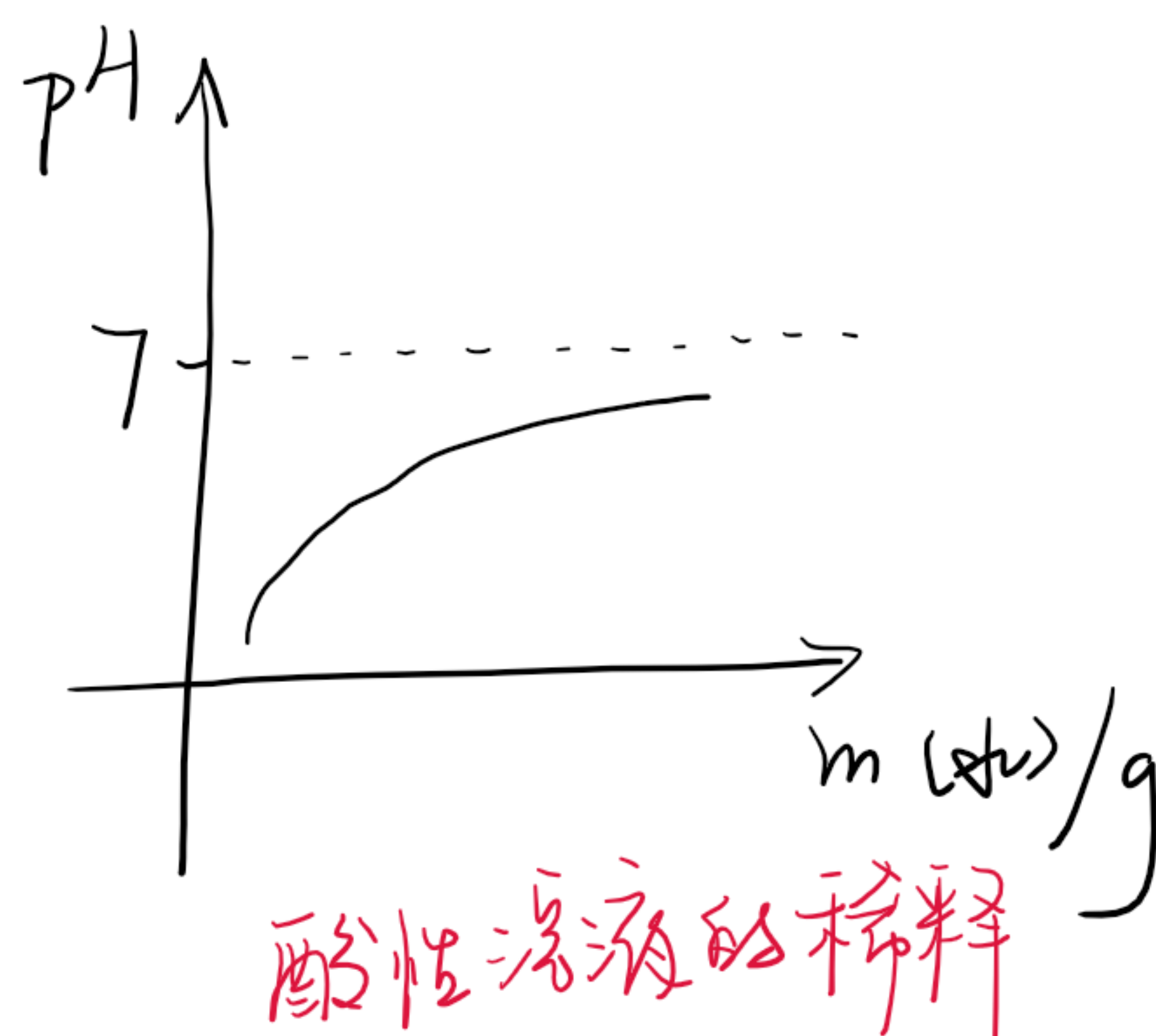
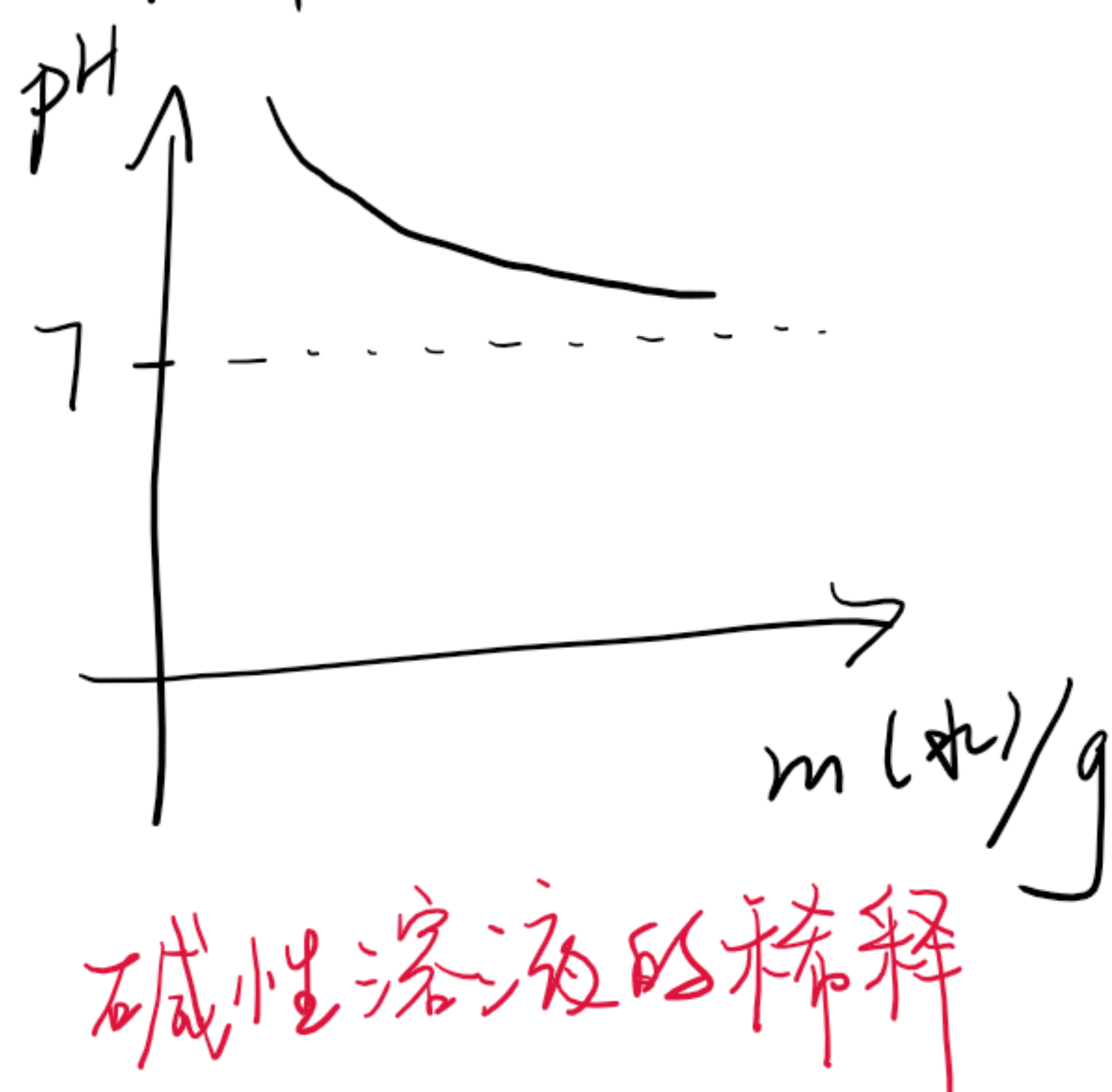
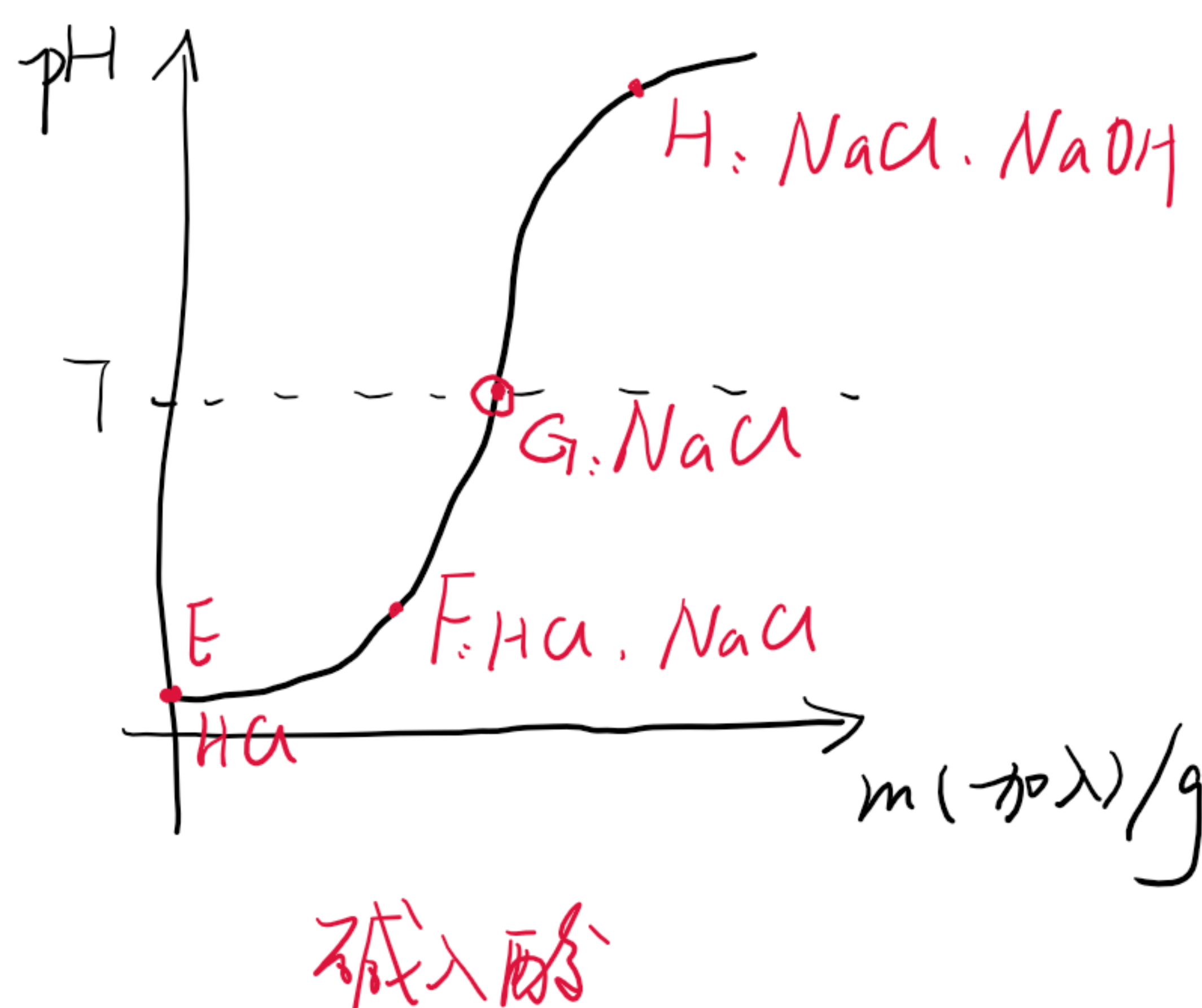
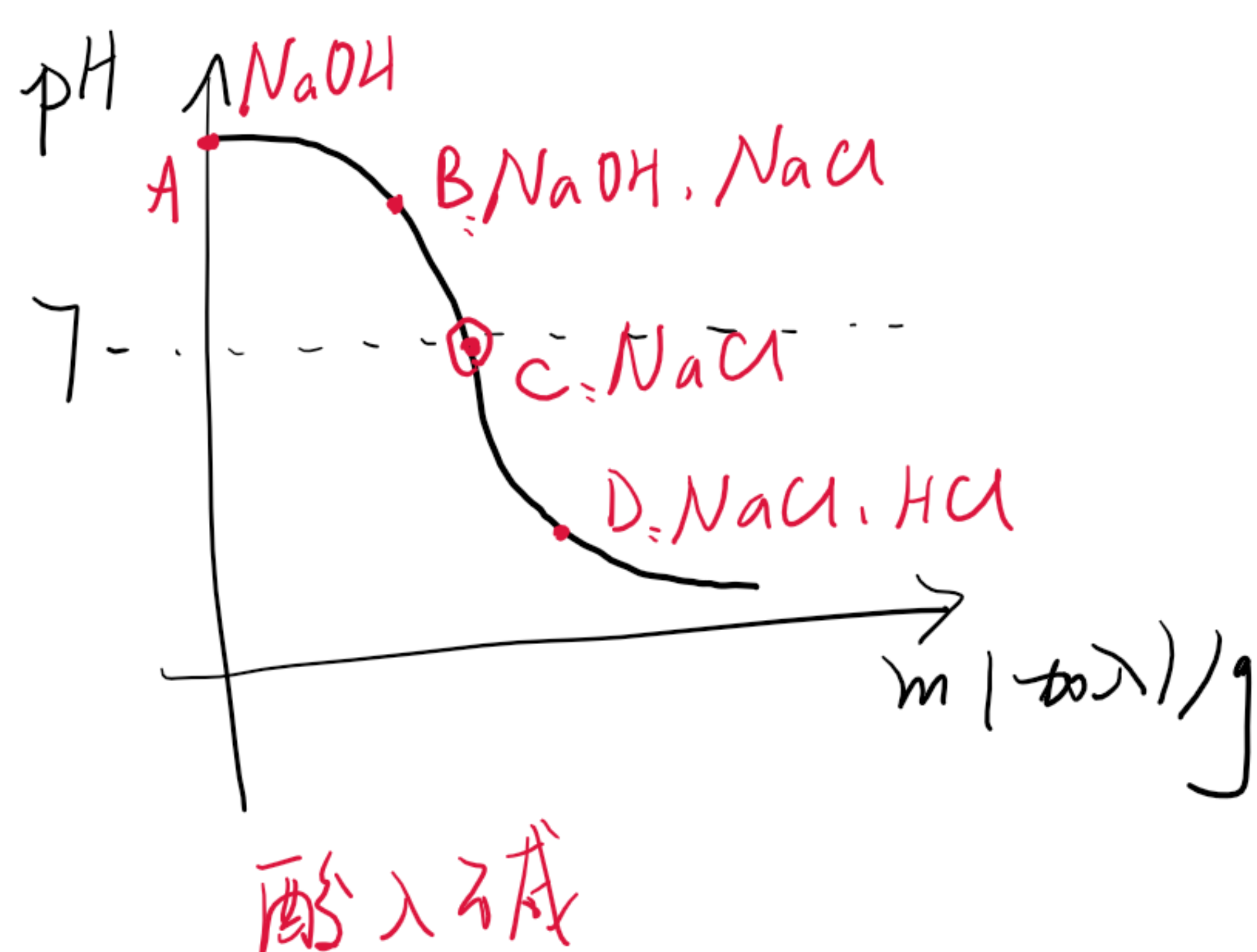


一. pH 图像

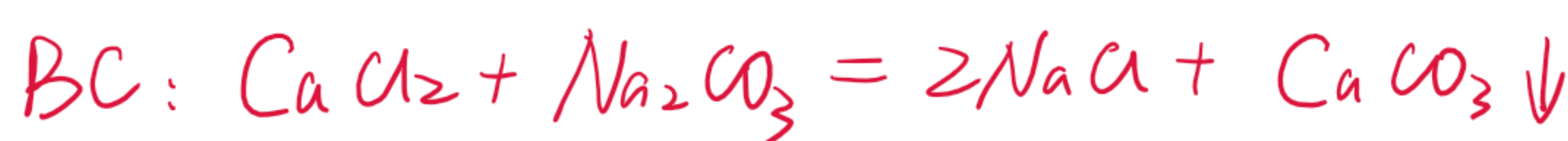
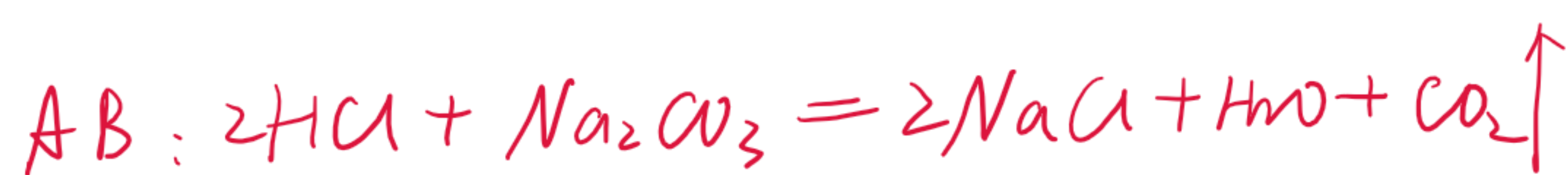
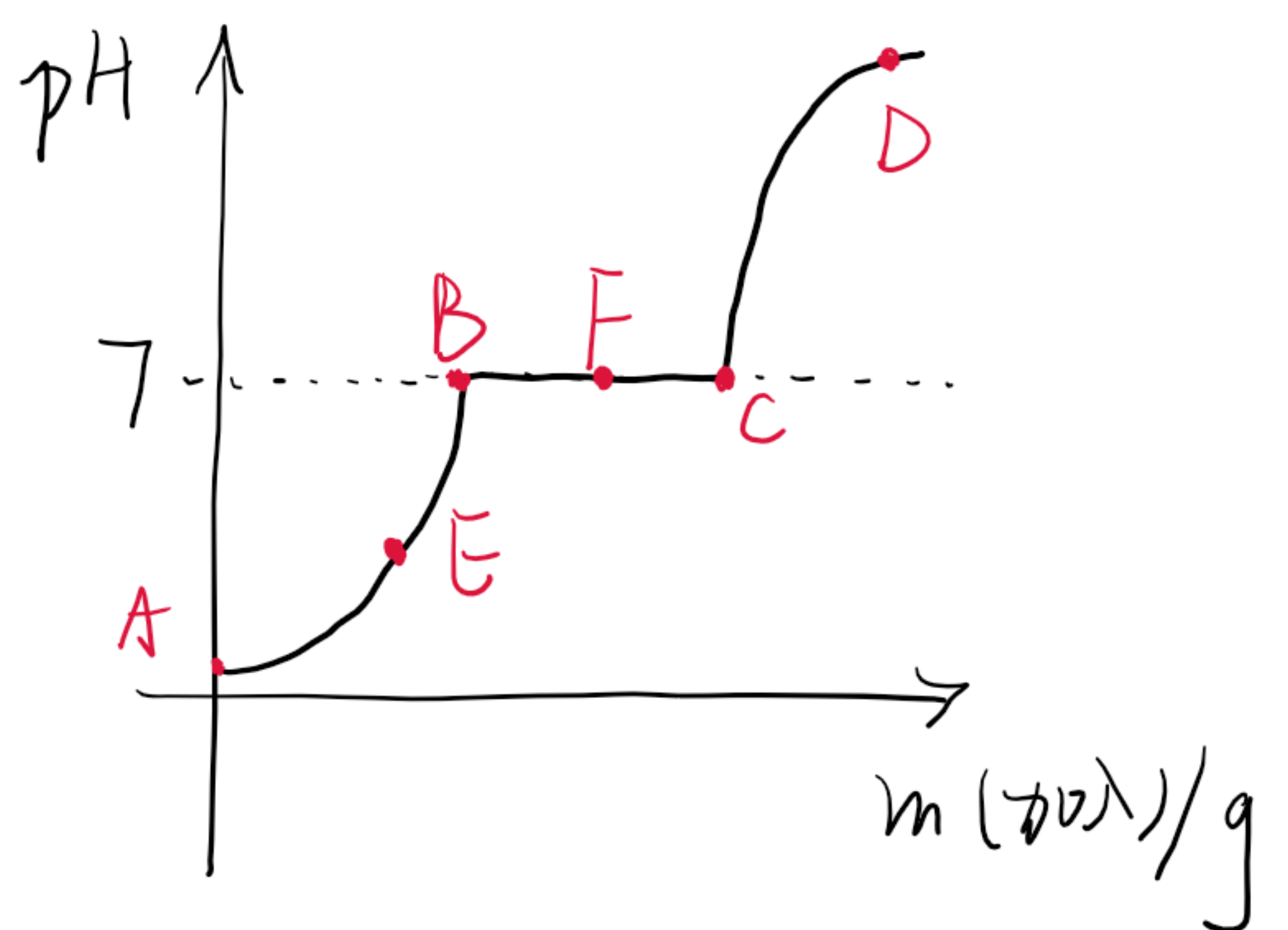
① 稀释问题



② 中和反应 pH 变化



③ 向 HCl, CaCl₂ 混合溶液中加入 Na₂CO₃ 溶液



A: ^① HCl, CaCl₂; B: ^④ NaCl, CaCl₂; C: ^⑥ NaCl; D: ^⑦ NaCl, Na₂CO₃
 E: ^② HCl, CaCl₂, NaCl; F: ^⑤ NaCl, CaCl₂

$m(\text{HCl}): ① > ②$

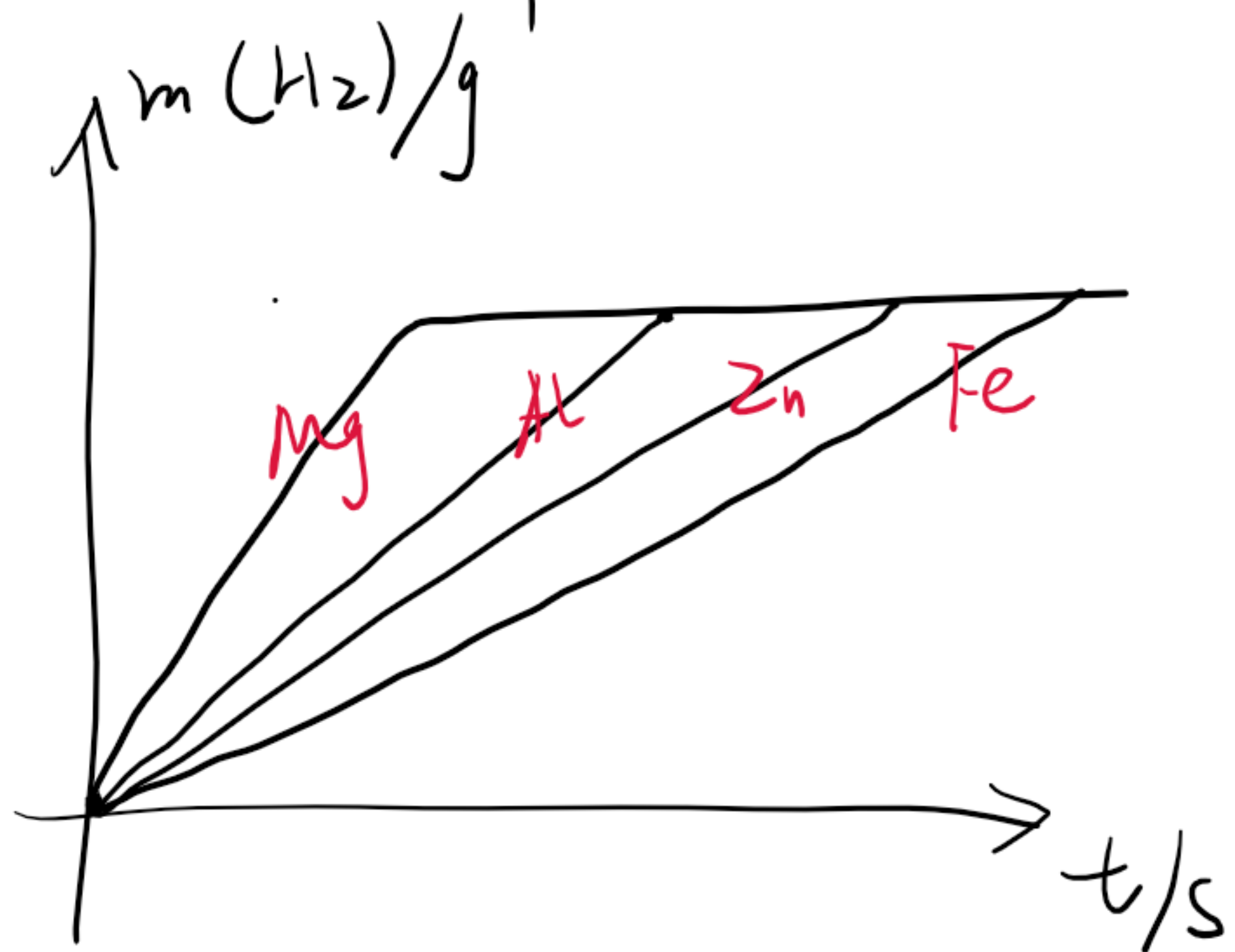
$m(\text{CaCl}_2): \blacktriangle > \bullet$

$m(\text{NaCl}): ③ < ④ < ⑤ < ⑥ = ⑦$

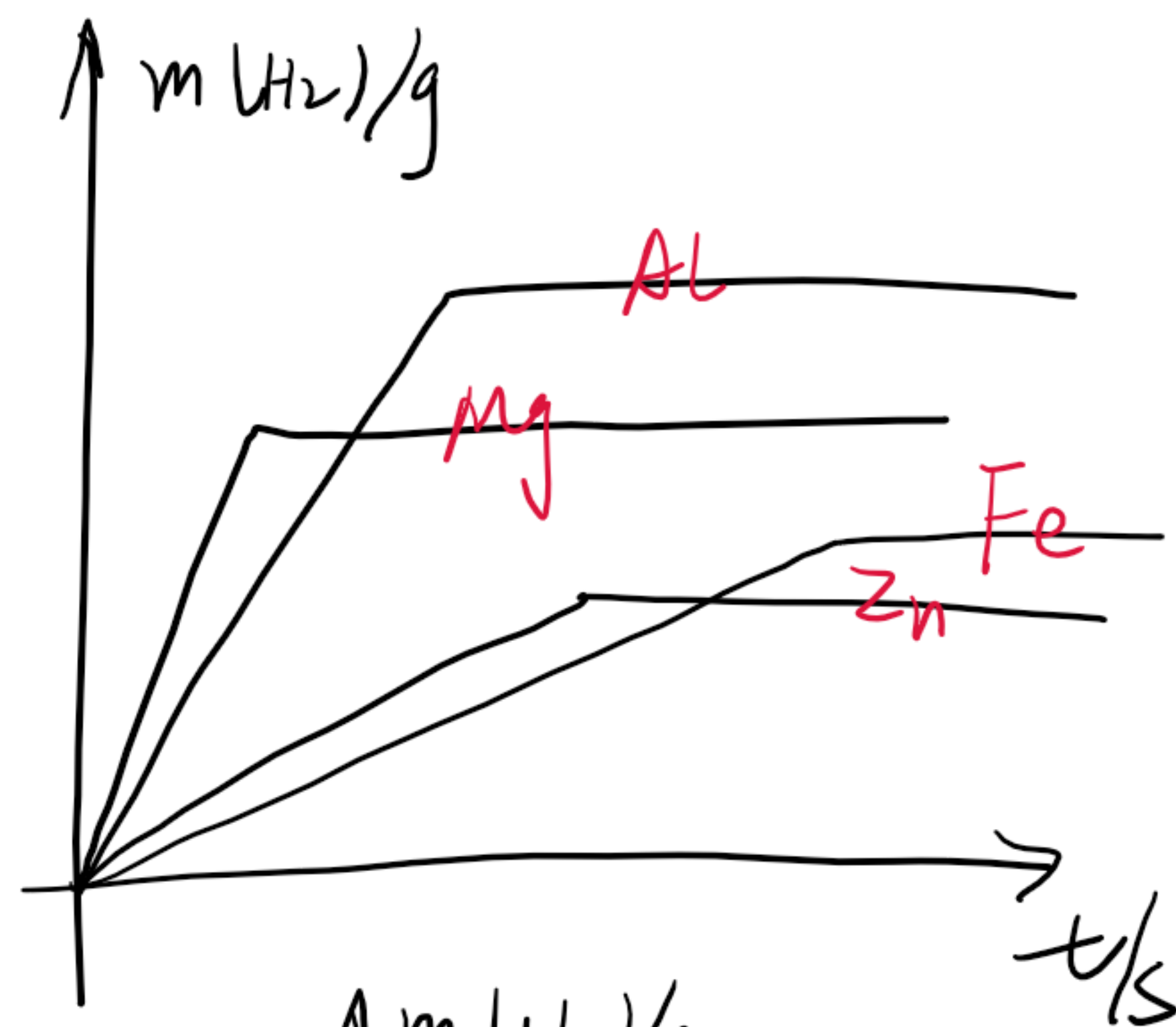
二. 金属与酸、与盐反应图像

① 与酸反应

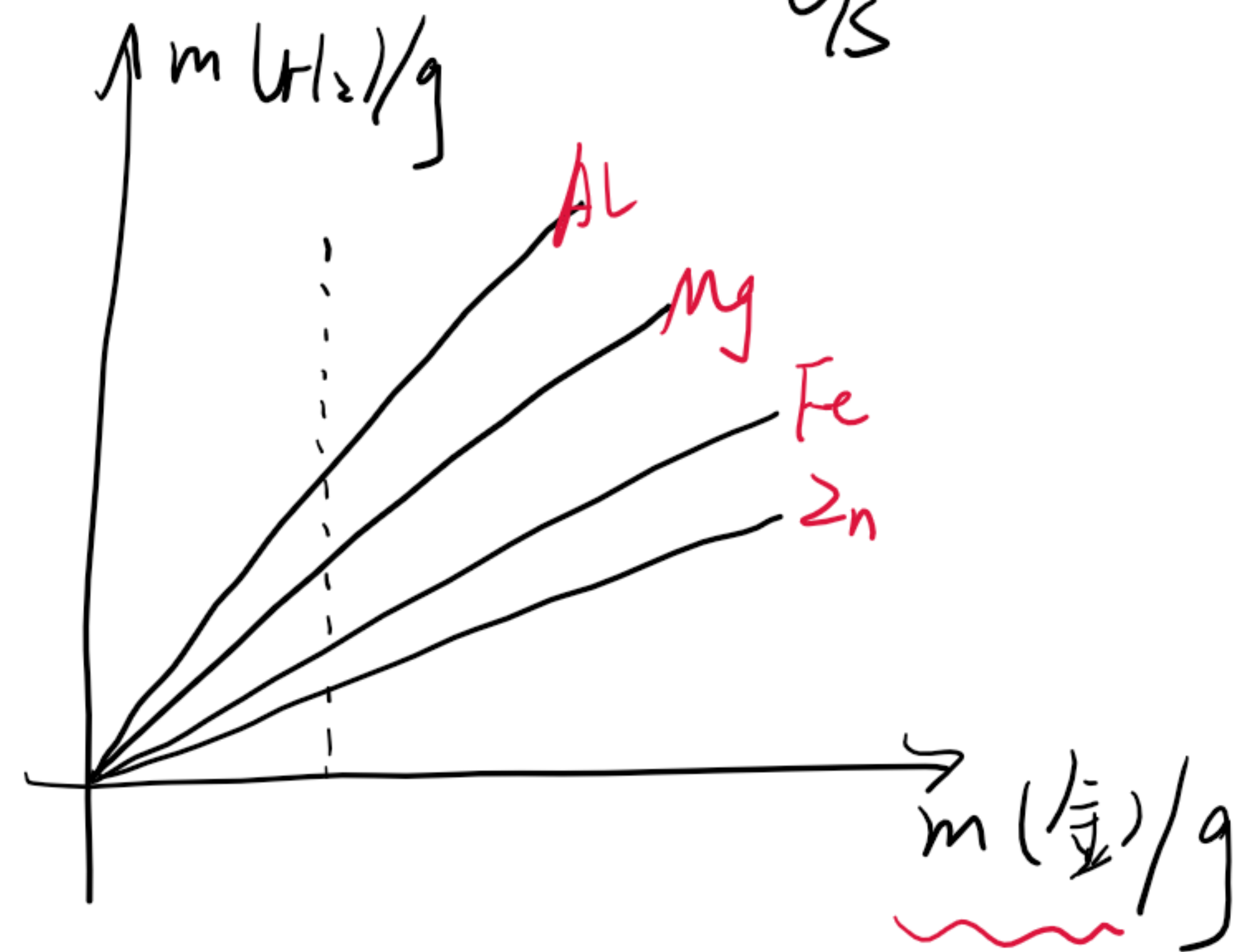
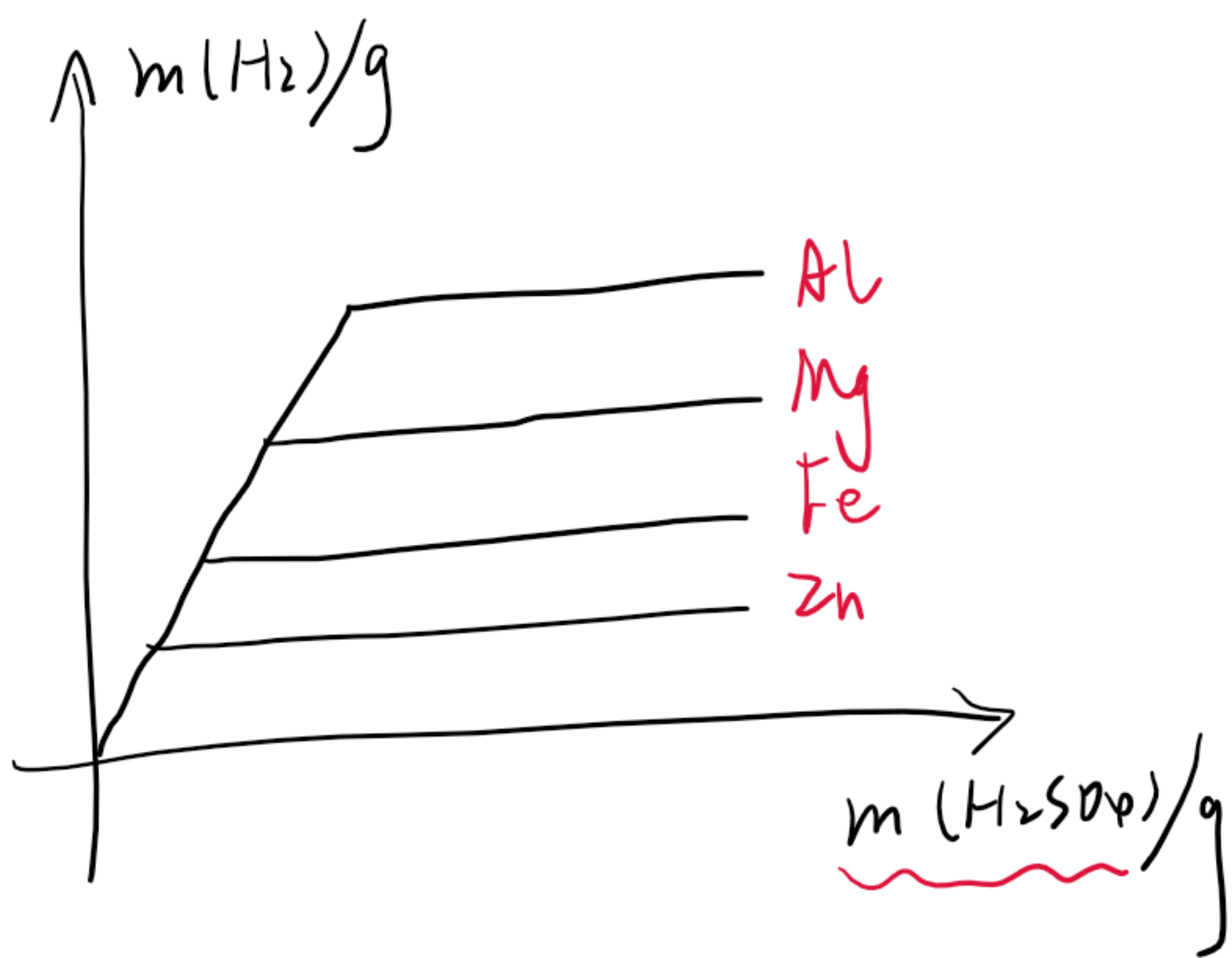
a. 产生速率



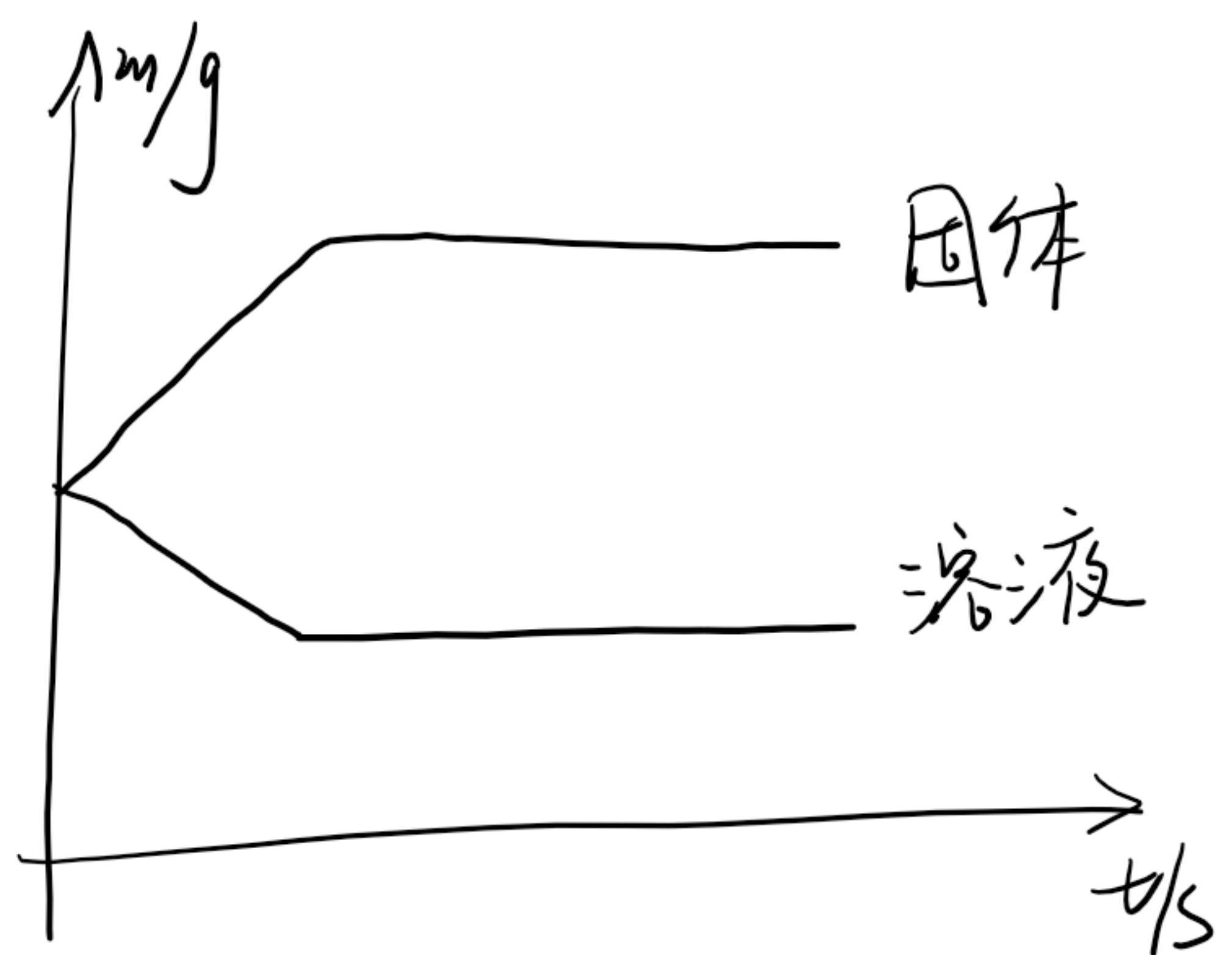
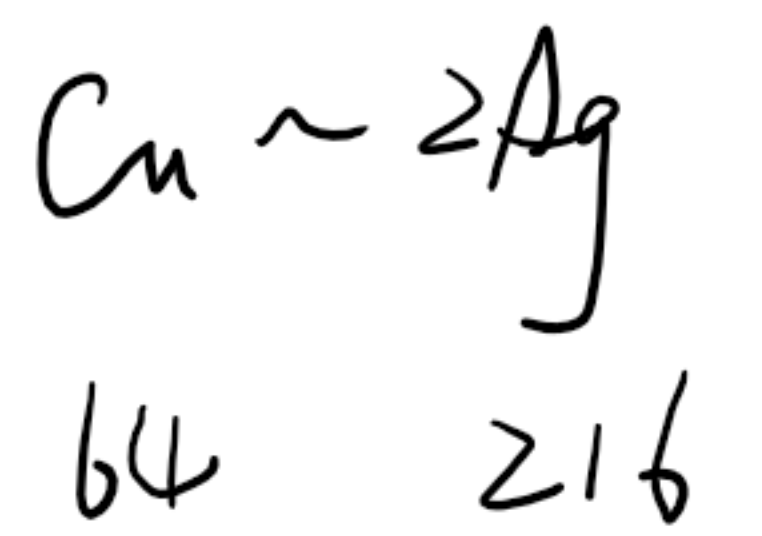
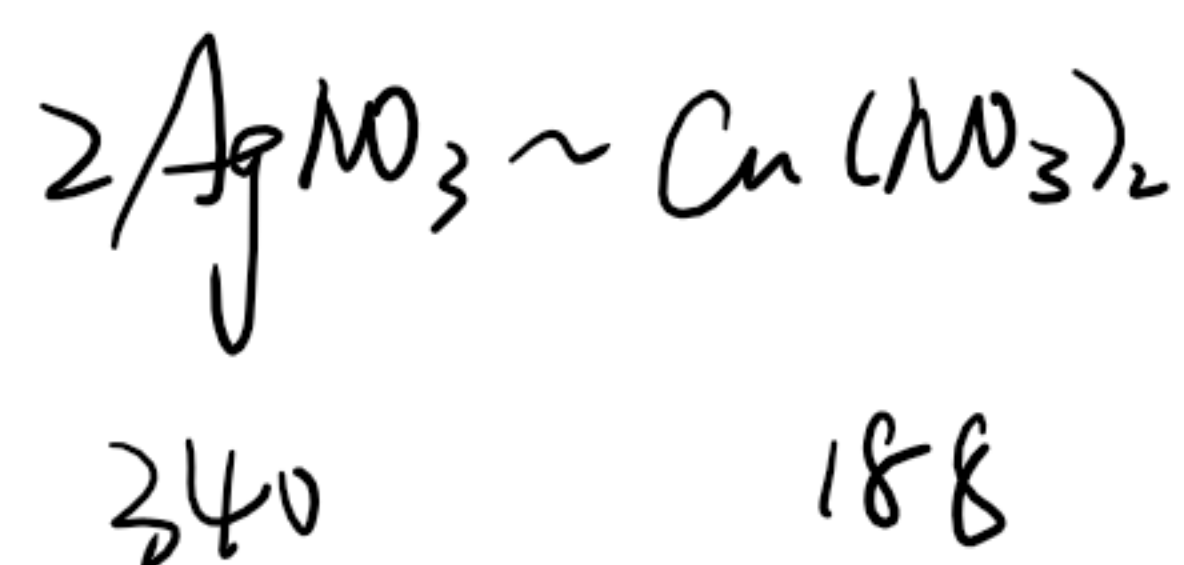
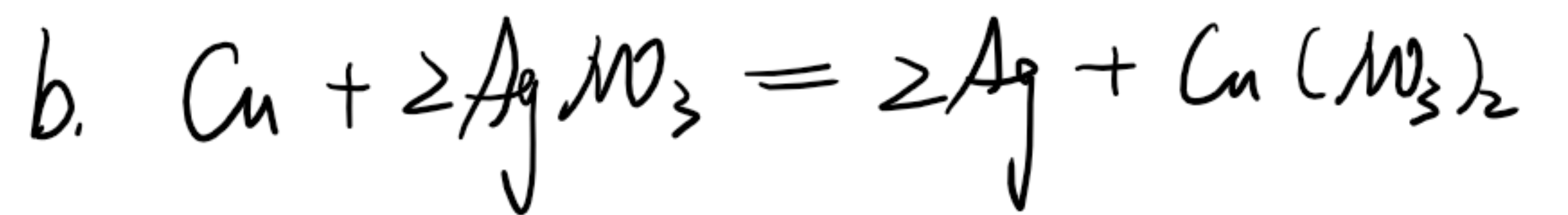
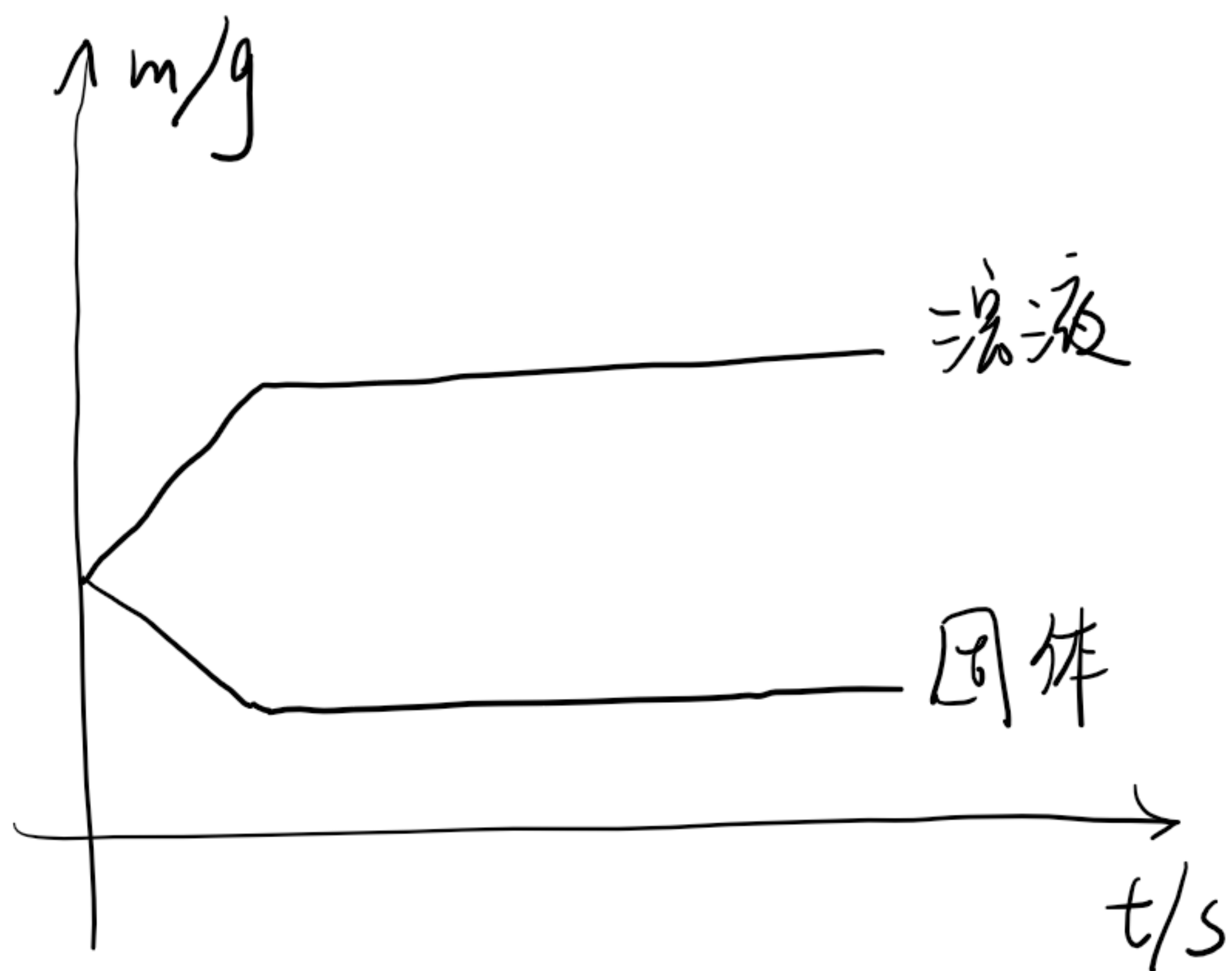
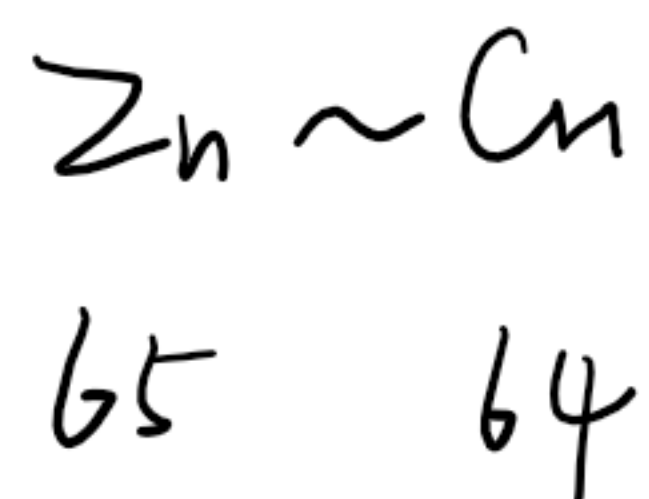
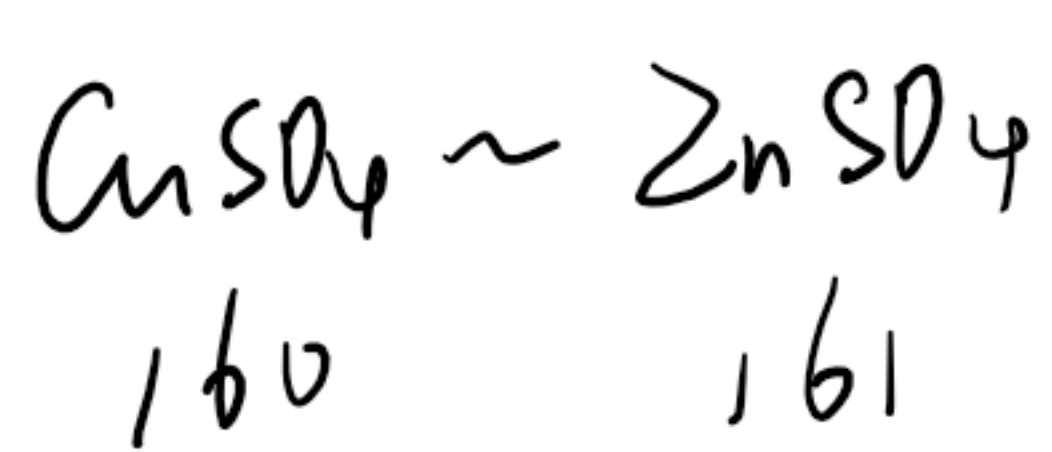
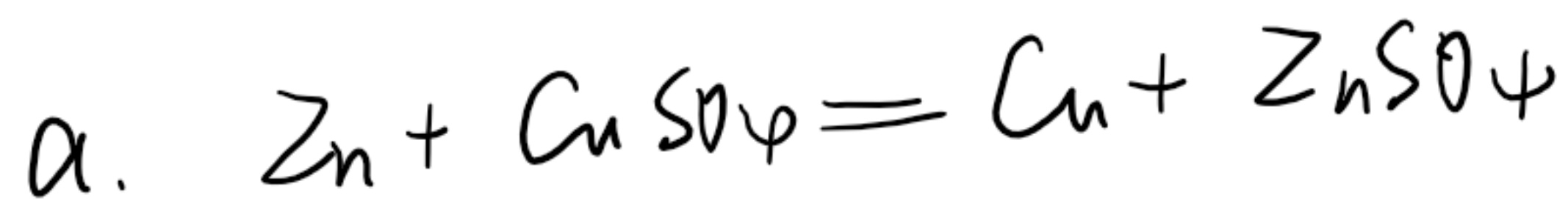
b. 产生能力



变形:



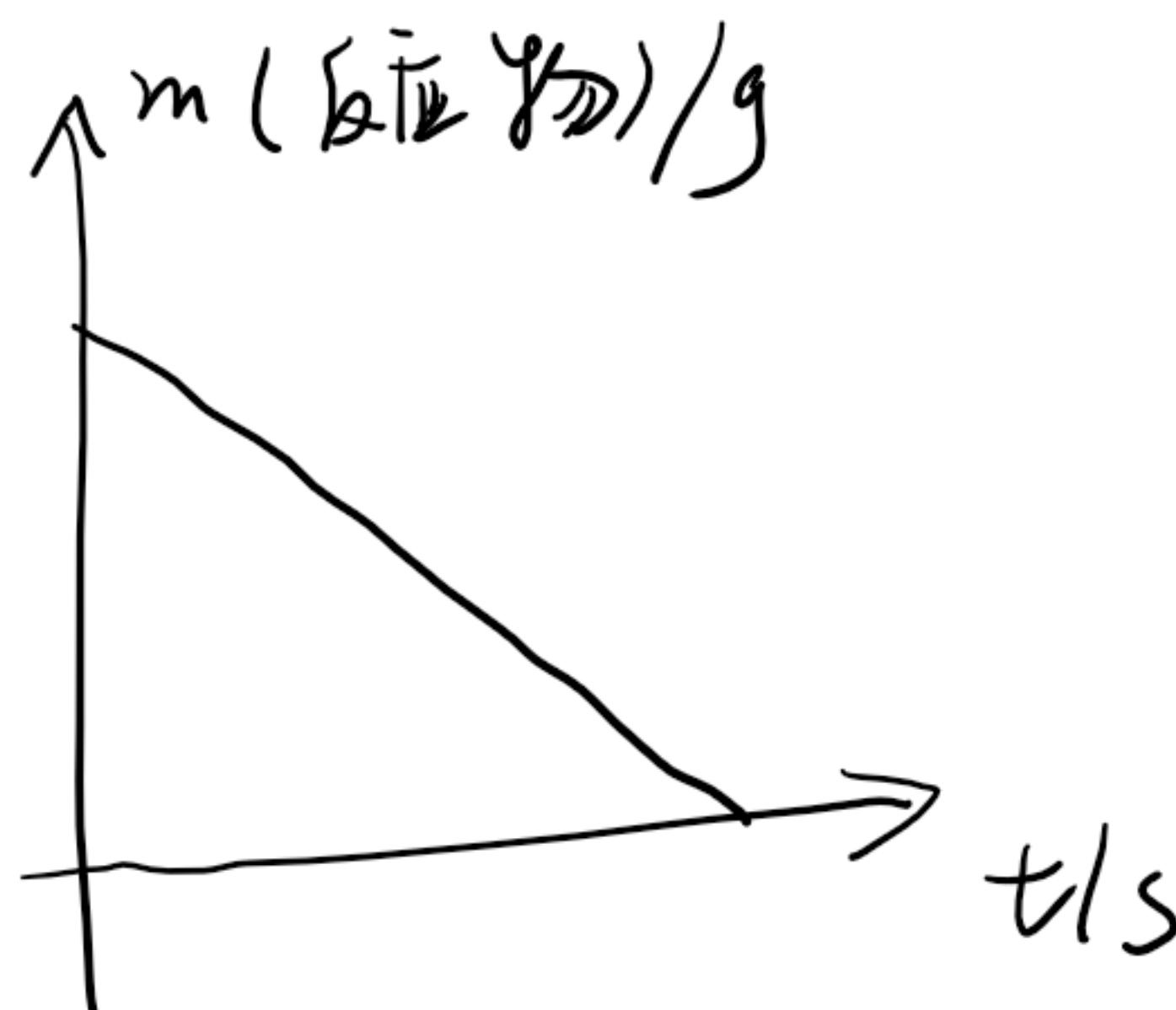
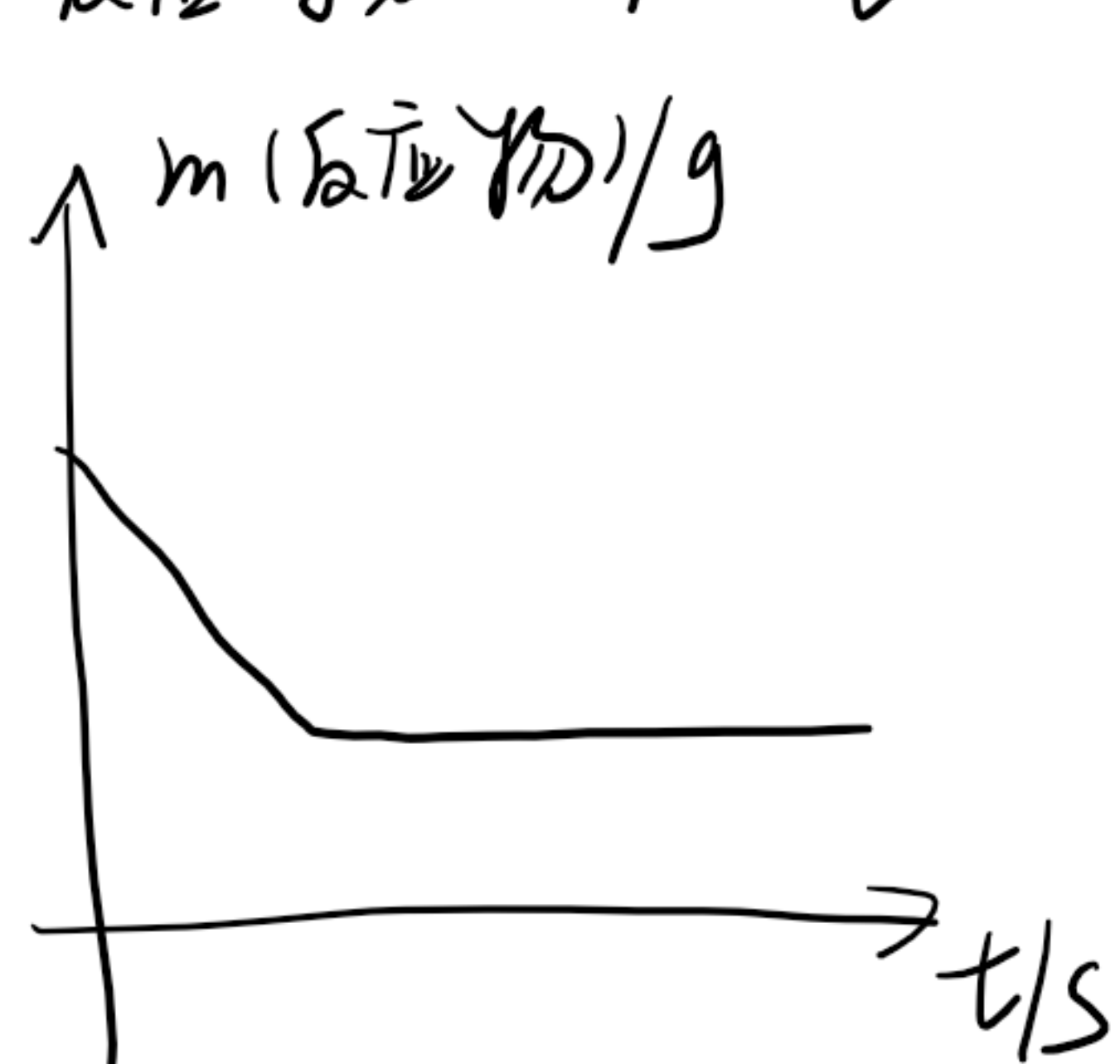
② 与盐溶液反应 (注意 Δm 溶液、 Δm 固体)



★: 注意起始点是否为0, 利用整体守恒.

三. 反应中反应物与生成物关系

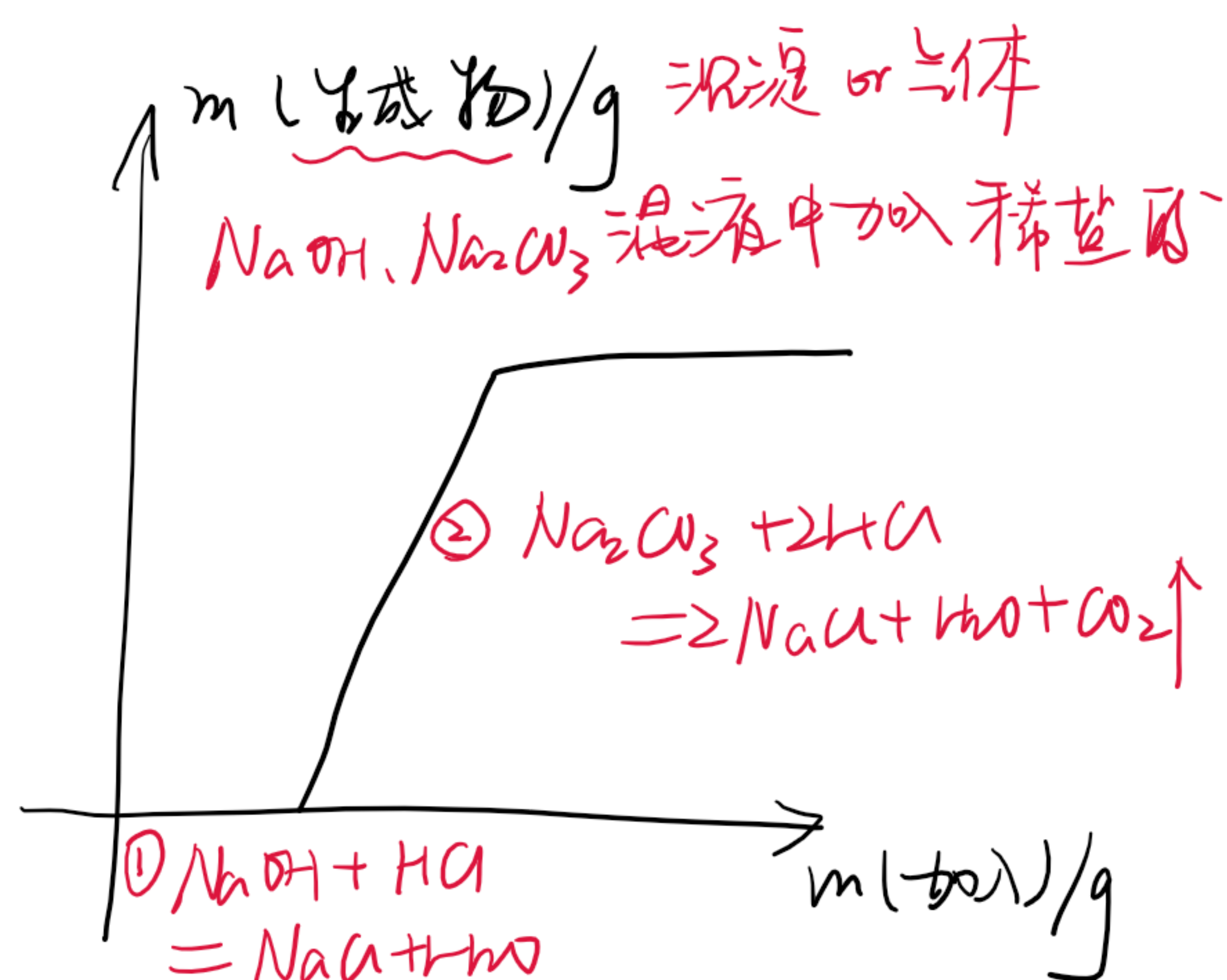
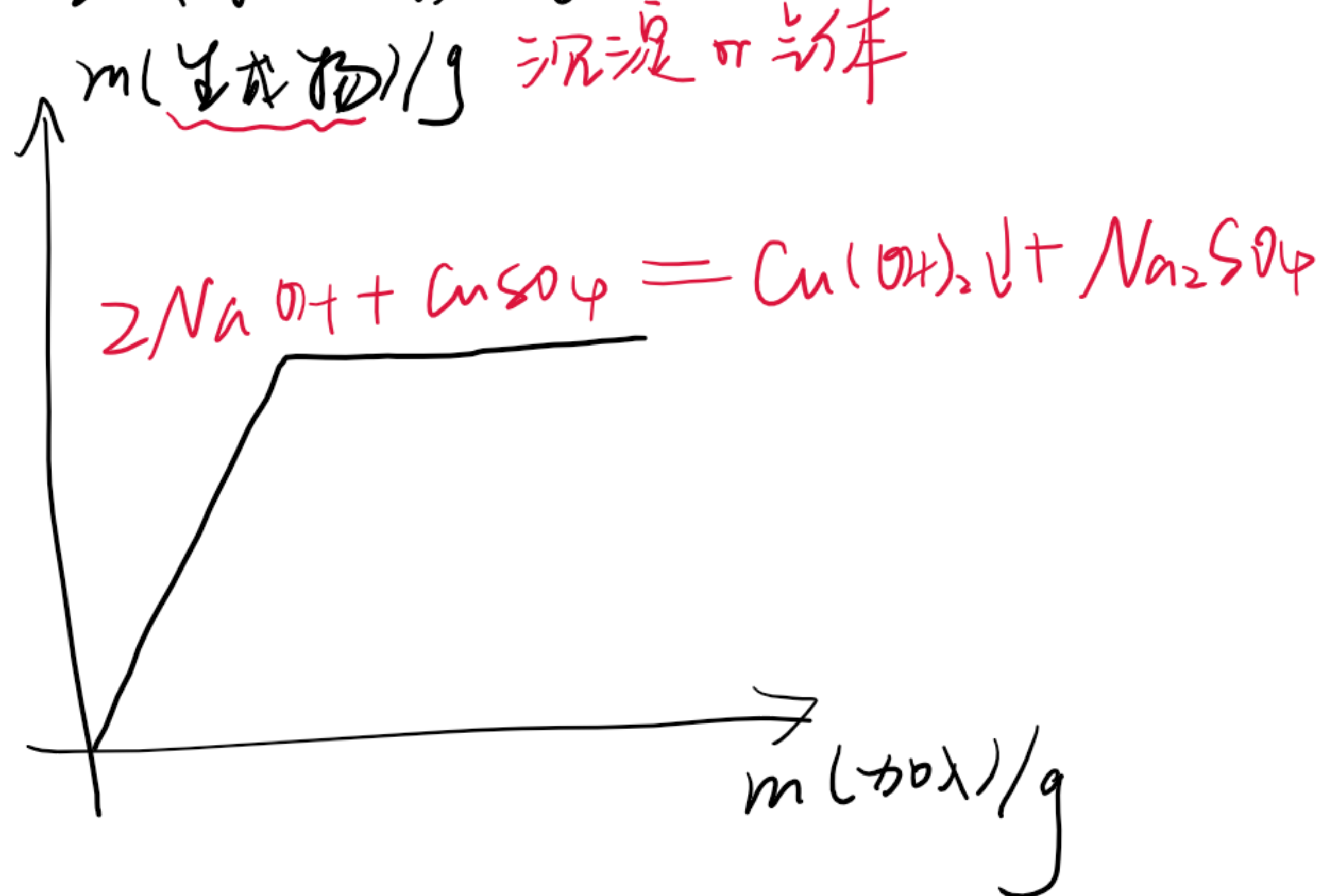
① 反应物的质量变化图像



关注终点

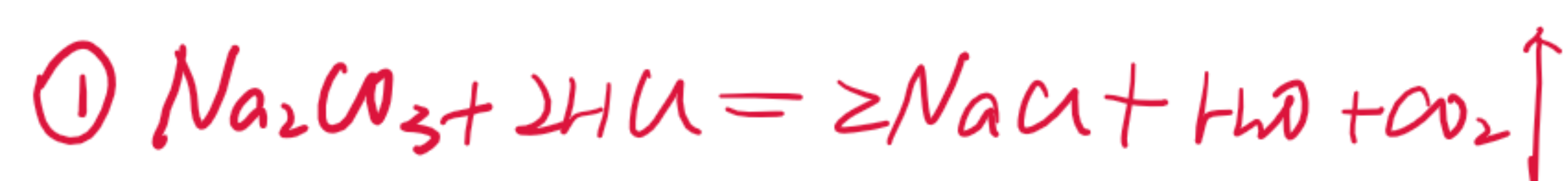
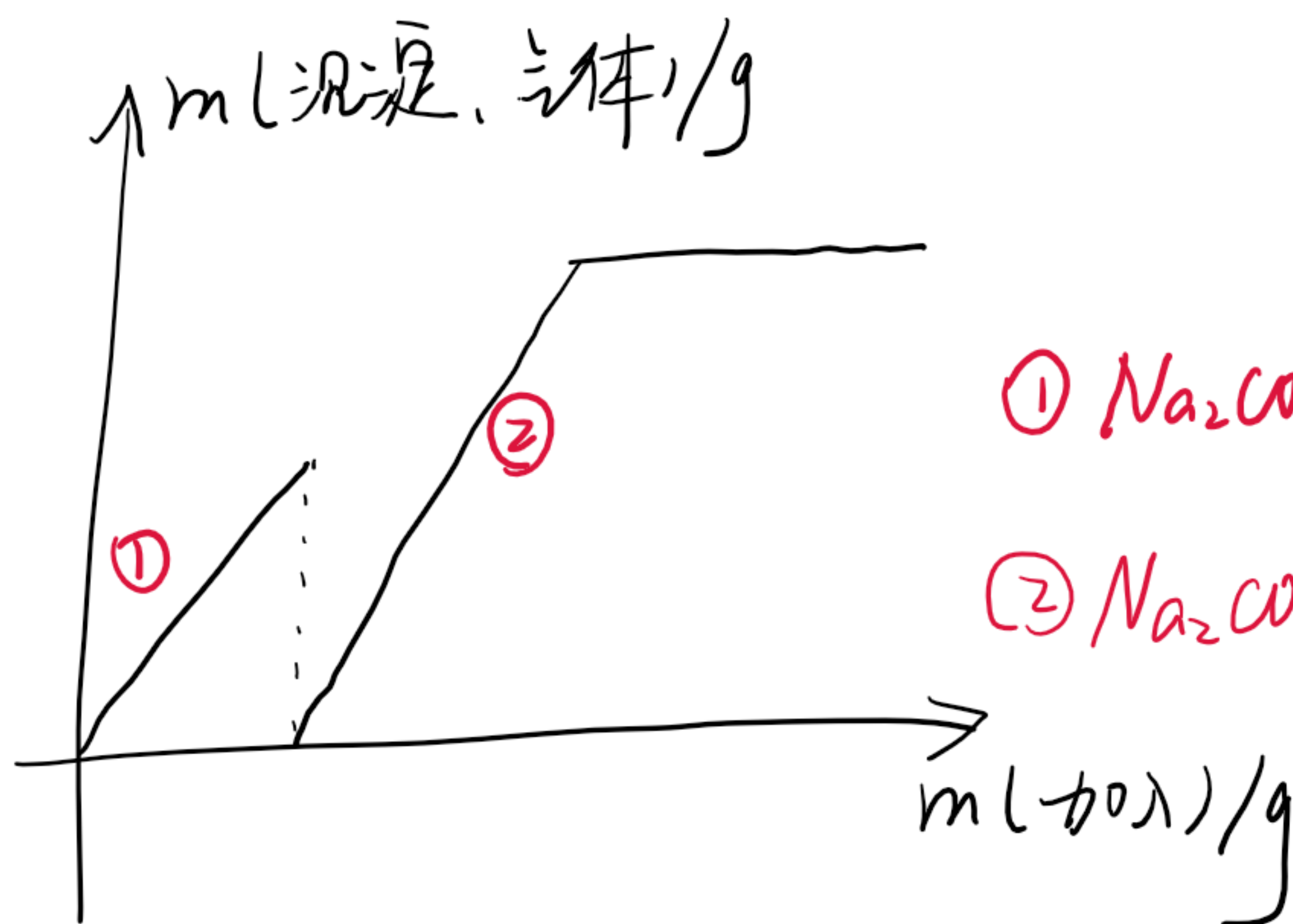
从而判断反应物是否反应完毕, 剩余量确切值.

② 生成物的质量变化图像



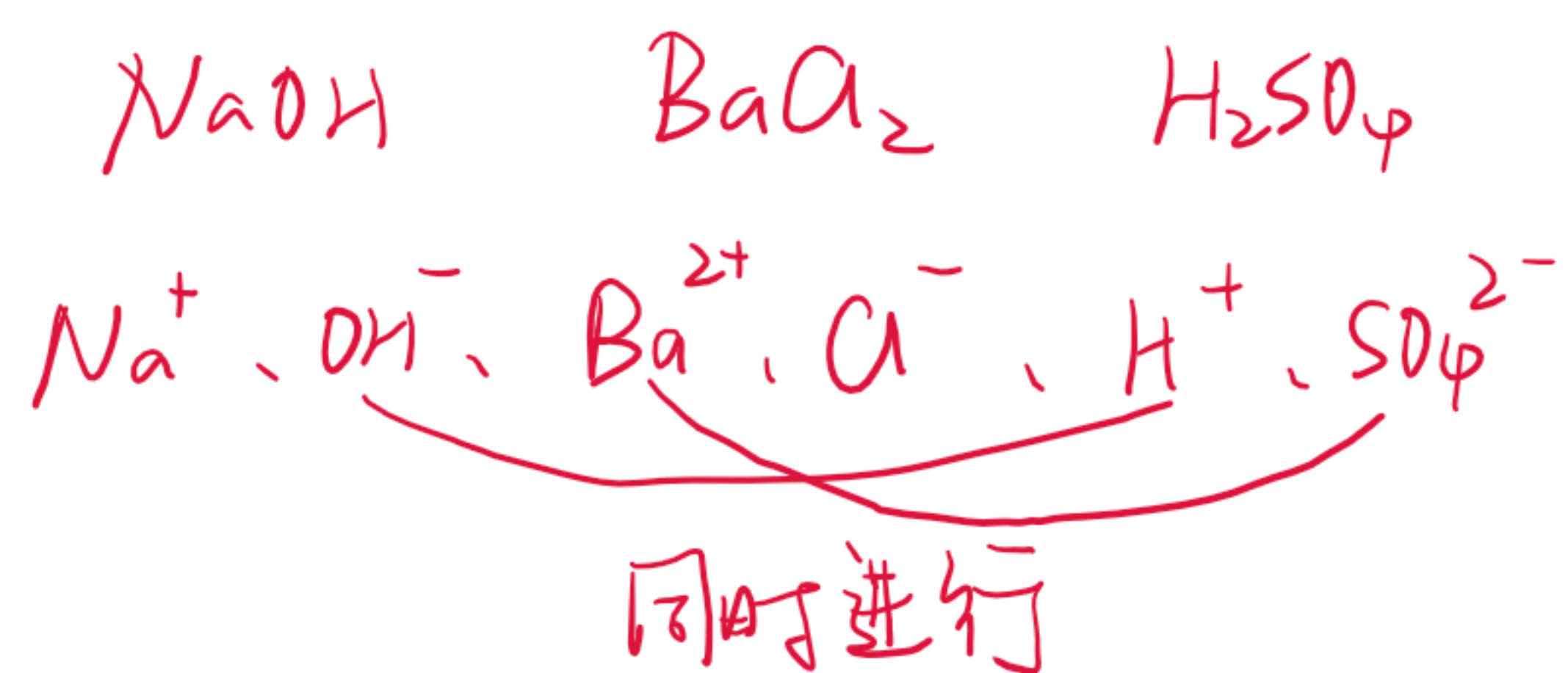
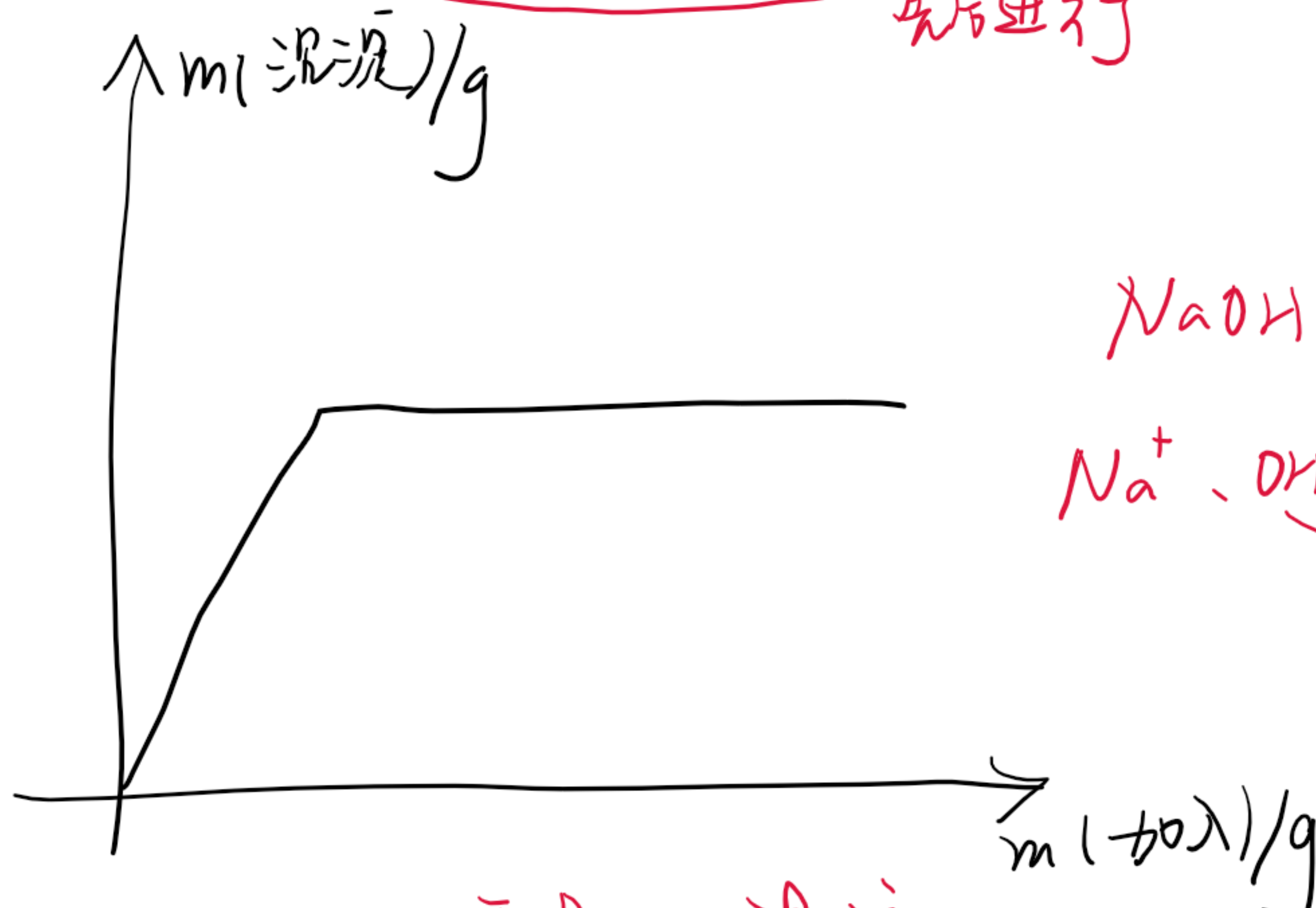
变形

★ 形成竞争
有先后顺序



HCl, CaCl₂ 溶液中加入 Na₂CO₃ 溶液
先后进行

★ 未形成竞争
同时反应



向 NaOH 和 BaCl₂ 溶液中加入稀硫酸