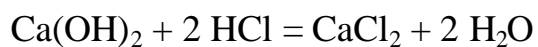


1.78 g 1.08 g x g



74 g 2*36.5 111

M (Ca(OH)₂) = 74, M (HCl) = 36.5, M (CaCl₂) = 111.

n (Ca(OH)₂) = 1.78/ 74 = 0.024 moles

n (HCl) = 1.08/ 36.5 = 0.0296 moles

According to equation Ca(OH)₂ : HCl = 1:2, so we have extra moles of Ca(OH)₂

That's why we calculate theoretic mass of CaCl₂ using data of HCl

x = 1.08*111/2*36.5 = 1.642 g – mass of CaCl₂

% yield of CaCl₂ = 1.38 *100%/1.642 = 84 %

Answer provided by www.AssignmentExpert.com