Answer on Question #63895 - Chemistry – General Chemistry

How many grams of carbon dioxide can be absorbed by 5.00 g of lithium hydroxide?

Solution.

2LiOH(s) + CO₂(g) \rightarrow Li₂CO₃(s) + H₂O(l) M(LiOH) = 7 + 16+ 1 = 24 g/mol; M(CO₂)= 12 + 2×16 = 44 g/mol 2 mol LiOH – 1 mol CO₂ (2×24) g LiOH – 44 g CO₂ 5.00 g LiOH – x g CO₂ x = 5×44/48 = 4.58 g CO₂

Answer: $m(CO_2) = 4.58 g$

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