

Answer on Question #68659 - Chemistry – Other

Task:

How many moles in 48 grams of H_2SO_4 .

Solution:

$$M(H_2SO_4) = 2 * Ar(H) + Ar(S) + 4 * Ar(O) = 2 * 1 + 32 + 4 * 16 = 98 \frac{g}{mol};$$

$$n(H_2SO_4) = \frac{m(H_2SO_4)}{M(H_2SO_4)} = \frac{48 g}{98 \frac{g}{mol}} = 0.4898 \text{ moles of } H_2SO_4$$

Answer: 0.4898 moles in 48 grams of H_2SO_4 .