
Opgave 1

Het begrip 'mol' is nog niet aan de orde geweest dus we hebben het hier over de 'molecuulmassa' in u.

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|---|---|----------|
| a | Na_3PO_4 | 164,0 u |
| b | CuSO_4 | 159,6 u |
| c | $(\text{NH}_4)_2\text{Fe}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$ | 392,14 u |
| d | NaNO_2 | 69,00 u |
| e | MgO | 40,3 u |
| f | FeBr_3 | 295,5 u |

Opgave 2

Idem...

- | | | |
|---|---|---------|
| a | H_2O_2 | 34,0 u |
| b | $\text{C}_2\text{H}_5\text{OH}$ | 46,0 u |
| c | CCl_4 | 154,0 u |
| d | P_4 | 124,0 |
| e | HCl | 36,5 u |
| f | $\text{C}_{12}\text{H}_{22}\text{O}_{11}$ | 342,0 u |

Opgave 3

Atomen tellen in het plaatje.

- a alanine 3 C 6 H 2 O 1 N ► $3 \times 12,0 + 6 \times 1,0 + 2 \times 16,0 + 14,0 = 88,0 \text{ u}$
- b D-glucose 6 C 12 H 6 O ► $6 \times 12,0 + 12 \times 1,0 + 6 \times 16,0 = 180,0 \text{ u}$

Opgave 4

Het massa-% zuurstof in:

- a MgO ► $(16,0 / (16,0 + 24,3)) \times 100 = 39,7 \%(m/m)$
- b H_2O ► $(16,0 / (16,0 + 2,0)) \times 100 = 88,9 \%(m/m)$
- c O_3 ► $100,0 \%(m/m)$
- d H_2SO_4 ► $(4 \times 16,0 / (4 \times 16,0 + 32,1 + 2)) \times 100 = 65,2 \%(m/m)$
- e $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$ ► $(13 \times 16,0 / (13 \times 16,0 + 2 \times 23,0 + 12,0 + 20)) \times 100 = 72,7 \%(m/m)$
- f $(\text{NH}_4)_2\text{Fe}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$ ► $(14 \times 16,0 / (14 \times 16,0 + 2 \times 32,1 + 2 \times 14,0 + 55,9 + 20)) \times 100 = 57,1 \%(m/m)$

Gewogen gemiddelde: 6,94 u