

Øving 3

1: E

2: C

3: D

4: E

3.16:

$$15.3 \text{ mol Ag} = 15.3 \text{ mol} \cdot 196.97 \text{ g mol}^{-1} = 3.01 \cdot 10^3 \text{ g} = 3.01 \text{ kg}$$

(Det kunne du solgt for en del...)

3.23:

Alle enhetene er g/mol

- a. $12.01 + 4 \cdot 1.008 = 16.04$
- b. $14.01 + 2 \cdot 16.00 = 46.01$
- c. $32.06 + 3 \cdot 16.00 = 80.06$
- d. $6 \cdot 12.01 + 6 \cdot 1.008 = 78.11$
- e. $22.99 + 126.9 = 149.9$
- f. $2 \cdot 39.10 + 32.06 + 4 \cdot 16.00 = 174.3$
- g. $3 \cdot 40.08 + 2 \cdot (30.97 + 4 \cdot 16.00) = 310.2$

3.50

a)

$$\frac{40.1}{12} = 3.34$$

$$\frac{6.6}{1} = 6.6$$

$$\frac{53.3}{16} = 4.43$$

$$\frac{6.6}{3.34} \approx 2$$

$$\frac{6.6}{4.43} \approx 1.5$$

Empirisk formel: C₂H₄O₃

b)

Samme prosess som i a

Empirisk formel: CNK

3.84

$$\frac{0.740 \text{ g}}{48.00 \text{ g mol}^{-1}} = 0.0154 \text{ mol}$$

$$\frac{0.670 \text{ g}}{30.01 \text{ g mol}^{-1}} = 0.0223 \text{ mol}$$

Ozon er begrensende reaktant

$$0.0154 \text{ mol} \cdot 46.01 \text{ g mol}^{-1} = 0.709 \text{ g NO}_2 \text{ dannes}$$

$$(0.0223 - 0.0154) \text{ mol} \cdot 30.01 \text{ g mol}^{-1} = 0.207 \text{ g NO er til overs}$$