POROČILO

PRIPRAVA MOLARNIH RAZTOPIN NaCl

CILJ: Priprava 100g 0,068M raztopine NaCl.

PRIBOR IN KEMIKALIJE:

Merilni valj (100mL), čaša (250mL), merilna bučka, areometer, NaCl, analitska tehtnica

POTEK: Izračunamo, koliko gramov NaCl potrebujemo:

RAČUN:

c=0,068 mol/L

M=58,5 g/mol

Vr=0,250L

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m2=?

n2 m2

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c= V2 = M2•Vr

m2=c•M2•Vr

m2 = 0,068 mol/L • 58,5 g/mol • 0,250 L = 0,9945 g ≈ 1 g

m2 = 1g

DELO:

Z analitsko tehtnico namerimo 1g NaCl(s) in ga damo v čašo, kjer ga raztopimo v manjši količini vode. Raztopljeni NaCl prenesemo v čisto 250 mL merilno bučko in razredčimo do oznake (250mL). bučko dobro pretresemo, da se ves NaCl enakomerno porazdeli. 100 mL raztopine prelijemo v čisti merilni valj in z areometrom izmerimo gostoto.

TABELA :

|  |  |  |  |
| --- | --- | --- | --- |
| ŠT.ČAŠE | c [mol/L] | mNaCl [g] | ρ [g/mL] |
| 1 | 0,548 | 8 | 1,023 |
| 2 | 0,205 | 3 | 1,009 |
| 3 | 0,342 | 5 | 1,013 |
| 4 | 0,068 | 1 | 1,002 |
| 5 | 0,137 | 2 | 1,003 |
| 6 | 0,616 | 9 | 1,025 |
| 7 | 0,274 | 4 | 1,012 |
| 8 | 0,411 | 6 | 1,016 |
| 9 | 0,479 | 7 | 1,020 |
| 10 | 0,342 | 5 | 1,013 |
| 11 | 0,616 | 9 | 1,025 |
| 12 | 0,137 | 2 | 1,004 |

GRAF gostote(ρ) raztopine proti molarni koncentraciji (c)

