

POZNAN UNIVERSITY OF TECHNOLOGY INSTITUTE OF BUILDING ENGINEERING DIVISION OF BUILDING AND BUILDING MATERIALS



BUILDING CHEMISTRY

LAB 2

FOUNDATIONS OF QUANTITATIVE CHEMICAL ANALYSIS DETERMINATION OF SODIUM HYDROXIDE CONCENTRATION WITH ACID-BASE TITRATION METHOD

Names		
Group	Date	
1. Procedure		



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2. Test results

Note the chemical equations of performed reaction.

CALCULATION

Molar concentration of the NaOH solution:

$$C = V_{mv} \cdot 0.1 \text{ (mol/dm}^3)/V_{NaOH}$$

Percent concentration of the NaOH solution:

$$C_{p} = \frac{V_{mv} \cdot 0.1 \; (mol/dm^{3}) \cdot 40 \; (g/mol)}{1000 \; (g/dm^{3}) \cdot V_{NaOH}} * 100\%$$

Weight of NaOH:

 $m_{NaOH} = V_{mv} \cdot 0.1 \text{ (mol/dm}^3) \cdot 40 \text{ (g/mol)}$

Nº	Titrant volume (HCl 1 mol/dm ³)	Analyte volume (NaOH)
	used in analysis [cm ³]	
1	$V_1=$	V _{NaOH} =
2	$V_2=$	C=
3	V ₃ =	m _{NaOH} =
	V_{mv} =	C _p =

 Conclusions