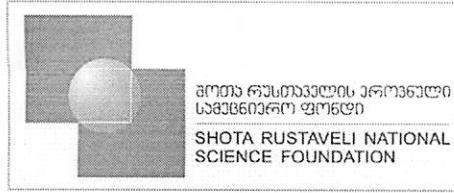


მაგიდის #: 19



მაგიდის #: 19

2004

ქიმიის 48-ე საერთაშორისო ოლიმპიადისთვის საქართველოს ნაკრები გუნდის წევრების
შესარჩევი კონკურსი

II ტური

სამუშაო ჟურნალი

გვარი: გეგეთ გეგე

სახელი: გეგე

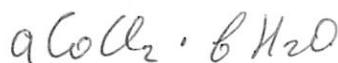
სკოლა: წმინდა ლევან გამორის სკოლა

კლასი: XII

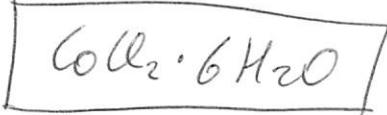
ტელ: 598-730-170

ელ-ფოსტა: giorgimeshvildishvili@yahoo.com

	$SOCl_2 + H_2O \rightarrow SO_2 + 2HCl$ $BaCl_2 + SO_2 + H_2O \rightarrow BaSO_4 + 2HCl$ $v(BaSO_4) = \frac{13,98}{233} = 0,06$ $v(H_2O) = v(SO_2) = v(BaSO_4) = 0,06$ $w(H_2O) = \frac{0,06 \cdot 18}{2,3492} = 0,454 \quad w(M \times Ag) = 0,546$ ცხვრას, რომ ეს ეტაპი 83-ი ვერ შეძლო ფორმით MCl_g $MCl_g + yAgNO_3 \rightarrow M(NO_3)_g + yAgCl$ $v(AgCl) = 0,002 \quad v(MCl_g) = \frac{0,002}{y}$ სავარაულო 36,4 კგ გარე 30,6 კგ გარე $m(MCl_g) = \frac{1,1896 \cdot 0,546}{5} = 0,1299$ $M + 35,5y = \frac{0,1299}{\frac{0,002}{y}} = \frac{0,1299y}{0,002} = 64,95y$ $M = 29,45y \quad \text{რეზისტრი გარე გარე გარე გარე}$ რეზისტრი გარე გარე გარე გარე $y=2 \quad M(M) = 58,9 \cdot 2 = 117,8$ ამ კო.	
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$$a:b = \frac{w(CoCl_2)}{130} : \frac{w(H_2O)}{18} = \frac{54,6}{130} : \frac{45,4}{18} = 0,42 : 2,52 = 1:6$$



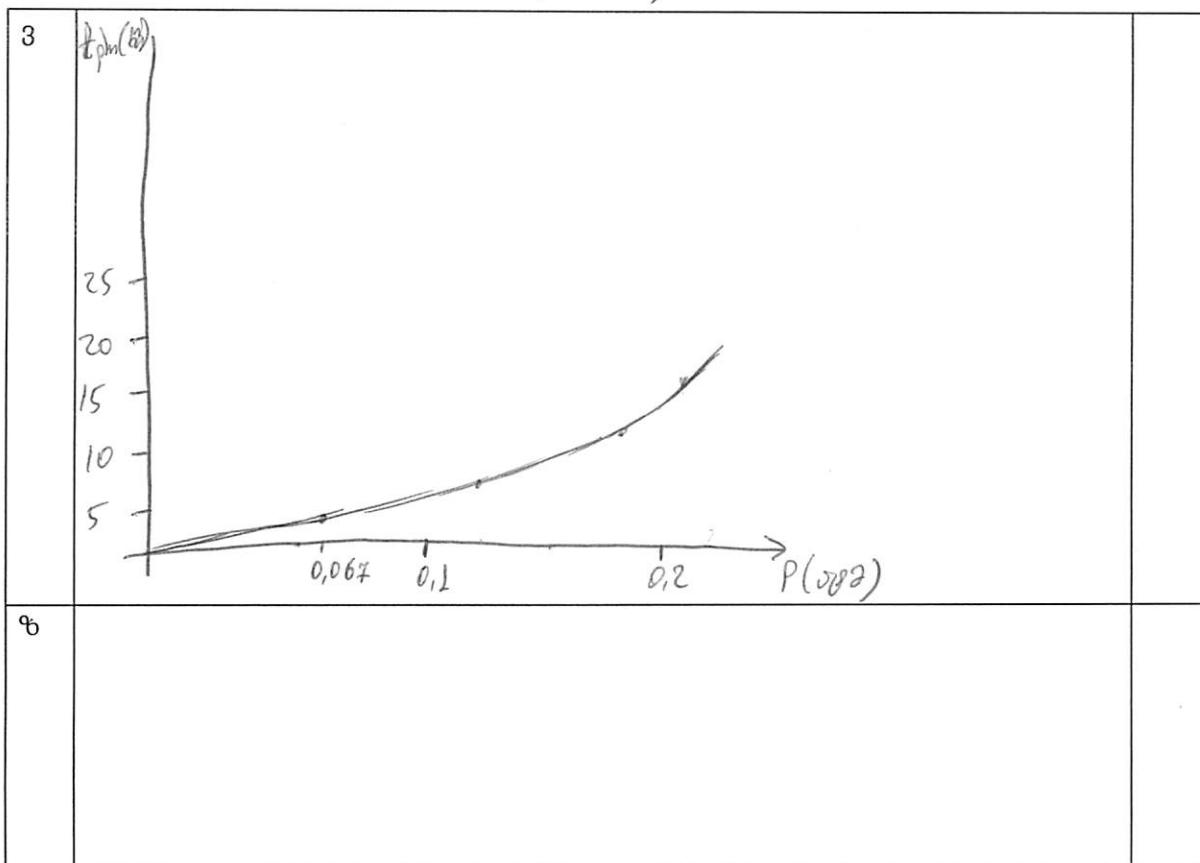
	$\text{HA} \rightleftharpoons \text{H}^+ + \text{A}^- \quad K_1 = \frac{[\text{A}^-][\text{H}^+]}{[\text{HA}]} = 1,74 \cdot 10^{-7}$ $\text{HB} \rightleftharpoons \text{H}^+ + \text{B}^- \quad K_2 = \frac{[\text{B}^-][\text{H}^+]}{[\text{HB}]} = 1,34 \cdot 10^{-7}$ $\text{H}_2\text{O} \rightleftharpoons \text{H}^+ + \text{OH}^-$ $[\text{H}^+] = [\text{A}^-] + [\text{B}^-] + [\text{OH}^-]$ <p>pH - ეს კამპინგის მიზანი იყენებული იქნარ დანართ, ხომ შესაბამის გარემოების მიზანი.</p> $[\text{H}^+] = [\text{A}^-] + [\text{B}^-]$ $[\text{A}^-] = \frac{K_1 [\text{HA}]}{[\text{H}^+]} \quad [\text{B}^-] = \frac{K_2 [\text{HB}]}{[\text{H}^+]} \quad [\text{H}^+] = \frac{K_1 [\text{HA}]}{[\text{H}^+]} + \frac{K_2 [\text{HB}]}{[\text{H}^+]}$ $[\text{H}^+]^2 = K_1 [\text{HA}] + K_2 [\text{HB}]$ <p>ისტორიულ სიტყვების გამოყენება შესაძლებელი იყო, ხომ $C_{\text{HA}} = [\text{HA}]$ და $C_{\text{HB}} = [\text{HB}]$</p> $1,74 \cdot 10^{-7} C_{\text{HA}} + 1,34 \cdot 10^{-7} C_{\text{HB}} = 10^{-7,5}$ $1,74 \cdot C_{\text{HA}} + 1,34 C_{\text{HB}} = 10^{-0,5}$ <p>სავარაულო მიზანი არ იყენებული იქნა, მაგრამ ეს დანართი იყენებულ იქნა.</p> $C_{\text{HA}} + C_{\text{HB}} = 0,22$
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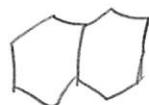
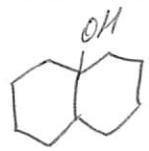
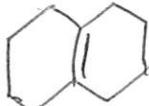
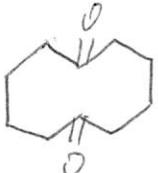
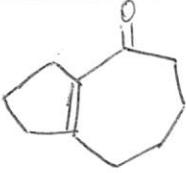
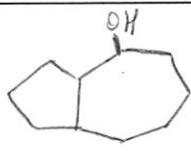
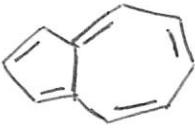
$$\begin{cases} 1,74 \cdot C_{\text{HA}} + 1,34 C_{\text{HB}} = 0,3162 \\ C_{\text{HA}} + C_{\text{HB}} = 0,22 \end{cases}$$

$$C_{\text{HA}} = 0,0535M \quad C_{\text{HB}} = 0,1665M$$

5	ნივთები მოვარდ 1	
8	<p>კომპლექსი 111 გადასძნა.</p> $\frac{d[NH_3]}{dt} = k_5 [NO_2 NH^-]$ $\frac{d[NO_2 NH^-]}{dt} = k_4 [NO_2 NH_2] - k_{-4} [NO_2 NH^-][H_3O^+] = 0$ $[NO_2 NH^-] = \frac{k_4 [NO_2 NH_2]}{k_{-4} [H_3O^+]} \quad \frac{d[NO_2]}{dt} = \frac{k_5 k_4 [NO_2 NH_2]}{k_{-4} [H_3O^+]}$	
8	$K \frac{[NO_2 NH_2]}{[H_3O^+]} = \frac{k_5 k_4}{k_{-4}} \frac{[NO_2 NH_2]}{[H_3O^+]} \quad K = \frac{k_5 k_4}{k_{-4}}$	
8	$\frac{d[NO_2]}{dt} = K \frac{[NO_2 NH_2]}{[H_3O^+]} = K \frac{[NO_2 NH_2]}{\frac{K_w}{[OH^-]}} = K \frac{[NO_2 NH_2] [OH^-]}{K_w}$	
9	$P = P_0 (1 - e^{-kt})$	

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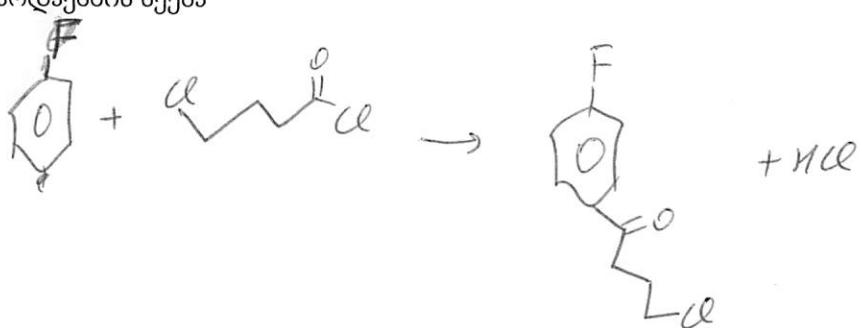


A		
B		
C		
D		
E		
F		
G	 	
H		

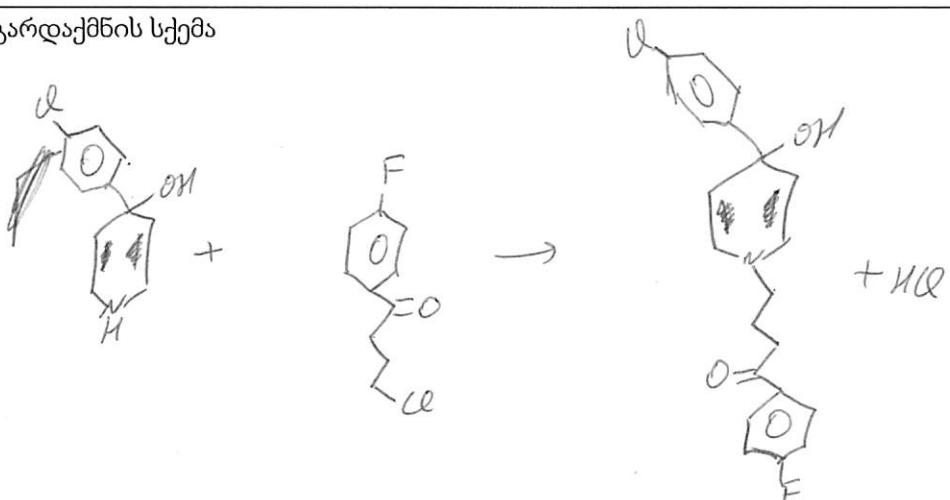
I	I გარდაქმნის სქემა	$\text{C}_6\text{H}_5\text{Cl} + \text{CH}_2\text{N}_2 \rightarrow \text{C}_6\text{H}_5\text{NH}_2 + \text{N}_2$ $\text{C}_6\text{H}_5\text{NH}_2 + \text{Cl}_2 \xrightarrow{\text{AlCl}_3} \text{C}_6\text{H}_5\text{NHCl} + \text{HCl}$ $\text{C}_6\text{H}_5\text{NHCl} \xrightarrow{\text{H}_2\text{O}} \text{C}_6\text{H}_5\text{COOH} + \text{NH}_3$ $\text{C}_6\text{H}_5\text{COOH} + \text{CH}_3\text{OH} \xrightarrow{\text{H}^+} \text{C}_6\text{H}_5\text{COOCH}_3 + \text{H}_2\text{O}$
II	II გარდაქმნის სქემა	$\text{C}_6\text{H}_5\text{COCl} \xrightarrow[\text{H}_2\text{O}]{\text{NaBH}_4} \text{C}_6\text{H}_5\text{CH}_2\text{CH(OH)CH}_2\text{OH} \quad (\text{K})$ $\text{C}_6\text{H}_5\text{CH}_2\text{CH(OH)CH}_2\text{OH} + \text{SO}_2 \rightarrow \text{C}_6\text{H}_5\text{CH}_2\text{CH(OH)CH}_2\text{Cl} + \text{SO}_2 + \text{H}_2\text{O} \quad (\text{L})$
III	III გარდაქმნის სქემა	$\text{C}_6\text{H}_5\text{CH}_2\text{CH(OH)CH}_2\text{OH} + \text{CH}_2=\text{CH}-\text{MgBr} \xrightarrow[\text{Et}_2\text{O}, \text{H}_2\text{O}^+]{} \text{C}_6\text{H}_5\text{CH}_2\text{CH(OH)}-\text{CH}(\text{CH}_2\text{CH}_2\text{OH})-\text{CH}_2\text{Cl} \quad (\text{M})$ $\text{C}_6\text{H}_5\text{CH}_2\text{CH(OH)}-\text{CH}(\text{CH}_2\text{CH}_2\text{OH})-\text{CH}_2\text{Cl} + \text{HBr} \xrightarrow{\text{Et}_2\text{O}} \text{C}_6\text{H}_5\text{CH}_2\text{CH(OH)}-\text{CH}(\text{CH}_2\text{CH}_2\text{Br})-\text{CH}_2\text{Cl} \quad (\text{N})$ $\text{C}_6\text{H}_5\text{CH}_2\text{CH(OH)}-\text{CH}(\text{CH}_2\text{CH}_2\text{Br})-\text{CH}_2\text{Cl} + \text{H}_2\text{N}-\text{C}_6\text{H}_4-\text{NH}_2 \rightarrow \text{C}_6\text{H}_5\text{CH}_2\text{CH(OH)}-\text{CH}(\text{CH}_2\text{CH}_2\text{NH}_2)-\text{CH}_2\text{NH}_2$

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IV გარდაქმნის სქემა



V გარდაქმნის სქემა



III. გერფონლ ტეზ.

