Probem (

la): towards reachants products

(b) to wards reactants

(c): towards products

(d) towards reactant

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20	Problem 2
C (c	pr positive
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Protenz

Cali Sum the reactions

(09) ((grap) + 1/2 02 (g) AH=+110.64K)

C(graf.) + 02(9) -> (02(9) 1 H = -393.51 K)

to get

 $\Delta N^{\circ} = -282.97$

(Bi Stable dy to to partly 10

Molecule 3 Justo CO and NH 60 n∂s,

Problems 1.3.10⁻³ 02 H2 Q:5.10-H (30 4061:1V) 7.104 (Portla) Pressulplatm

Problems

(d): Our 50 ml of Oil M weak abid has

Oil moles es 50 ml = 0.5 moles acid

and the base ellminates

0.1 moles 20 ml = 0.2 noles

thus, for the reaction

(H3 (00H +H20 -> M) + H30++CH3 (001)

 $k_{q} = 1.8 \cdot 10^{-6} = \frac{\chi^{2}}{(0.3 - \chi)} \Rightarrow \chi \approx 8.78 \cdot 10^{-3}$

and thus pH=2.096

(b): By anomed equation I commot remember the name of, PH = 4.74

(c) 90 mL

(d):

 $k_{b} = \frac{1.10^{-14}}{1.8.10^{-5}} = \frac{\chi^{2}}{(0.505-\chi)} \Rightarrow \chi = 5.27 \cdot 10^{-6}$

> PH= 8.72

trallem 7

materiale 3

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