time, was a modern innovation and it developed to play an important role in defining Ukrainian culture for quite some time [4, p. 112]. We hope that architects, artists and laypeople will acknowledge that church buildings, as central features of Ukrainian material culture, have a responsibility to be not only complex liturgical vessels and to provide meaningful connections to our past but, just as importantly, to establish valuable connections to contemporary contexts, locally and internationally.

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Роман Саєнко

KINETIC COMPENSATORY EFFECT IN ONE-ATOM SPIRIT

It is shown in works [1; 2; 3] that the temperature depending of

$$\eta_s = \frac{h N_a}{4 \pi e \chi V_\mu} \exp\left(\frac{\Delta G^{\neq}_{\eta i}}{R T}\right) = \frac{h N_a}{4 \pi e \chi V_\mu} \exp\left(\frac{\Delta H^{\neq}_{\eta} - T \Delta S^{\neq}_{\eta i}}{R T}\right)$$

coefficient of displacing viscosity can be described by the expression.

where e – the base of natural logarithms, χ – transmission coefficient, $\Delta G^{\neq}_{\eta i}$ and $\Delta S^{\neq}_{\eta i}$ – true meanings of free enthalpy and entropy of activation. Formally, an equation (1) differs from the equation received in the theory of Eiring – Frenkel by a factor ($4\pi e\chi$) in $\frac{hN_a}{4\pi e\chi V_\mu}$. Mathematical similarity in writing of these equations must not consider as simple elaboration in the theory of Eiring – Frenkel that causes to better combination of calculate and experimental quantities. As it is shown in works [1, 3], the equation (1) was recieverd from other ideas about the mechanism of swampy stream and it is based on the methods and ideas of inequilibral thermodynamics. It is worth mentioning that the equation of Frenkel – Eiring can be received from the equation (1) if it is supposed that the liquid behaves itself as ideal gas [4].

Using facts received by us, it was counted the meaning ΔH_η with the help of correlation

$$\Delta H_\eta^{\neq} = R \frac{\partial\left(\ln \frac{\eta_s}{\rho}\right)}{\partial\left(T^{-1}\right)} \qquad (2)$$

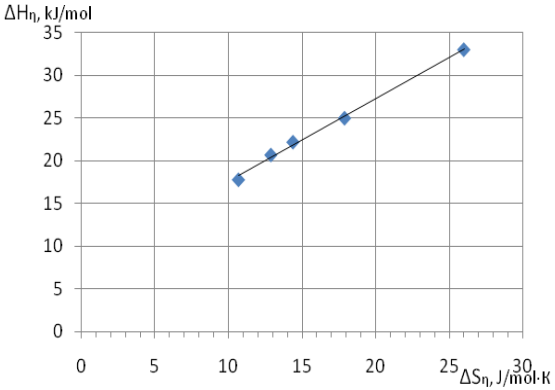
The calculations represent that $\Delta H_\eta^{\#}$ increases in a line C_3H_7OH; $C_5H_{11}OH$; $C_6H_{13}OH$; $C_8H_{17}OH$; $C_{16}H_{33}OH$. Then, using the equations

$$\Delta G_{\eta e}^{\neq} = RT \ln \frac{\eta_s \mu_p}{h N_a \rho}, \qquad (3)$$

$$\Delta S_{\eta e}^{\neq} = \frac{\Delta H_\eta^{\neq} - \Delta G_{\eta e}^{\neq}}{T}, \qquad (4)$$

which were got from (1) in an assumption $4\pi e\chi=1$, have determined the empirical value of free enthalpy and entropy activation of swampy stream.

It is seen from received facts that linear depending is watched for researched liquids between enthalpy and empirical entropy of activation of swampy stream (see picture 1.) – kinetic compensatory effect [1, 3, 4].



Picture 1. Depending the enthalpy of activation of swampy stream from empirical entropy

$$\Delta H_\eta^{\neq} = A + T_k^{\neq} \Delta S_{\eta e}^{\neq} \qquad (5)$$

At the same time the segment, which is separated by a straight line on Y - axis, is equal to value A, but the segment, which is separated on X – axis, is equal $R\ln 4\pi e\chi$.

The results of calculations showed that A=7,9 kJ/mol; $T_k^{\neq} \approx 433$ K; $\chi = 3{,}5\cdot 10^{-3}$.

Using the relation [1; 4] $\Delta S_{\eta i}^{\neq} = \Delta S_{\eta e}^{\neq} - R\ln 4\pi e\chi$, (6)

we have calculated the true meanings of entropy activation of viscous flow $\Delta S_{\eta i\ C3H7OH}^{\neq} = 18{,}9$ J/mol·K; $\Delta S_{\eta i\ C5H11OH}^{\neq} = 21{,}1$ J/mol·K; $\Delta S_{\eta i\ C6H13OH}^{\neq} = 22{,}6$ J/mol·K; $\Delta S_{\eta i\ C8H17OH}^{\neq} = 26{,}1$ J/mol·K; $\Delta S_{\eta i\ C16H33OH}^{\neq} = 34{,}2$ J/mol·K. The link between $\Delta H_{\eta}^{\neq}$ and $\Delta S_{\eta i}^{\neq}$ can be represented as

$$\Delta H_{\eta}^{\neq} = T_k^{\neq} \Delta S_{\eta i}^{\neq} \ . \qquad (7)$$

The parameter $T_k^{\neq}$ is called isokinetic temperature and is determined as a tangent of angle of declivity that is described by the equation (7). The availability of kinetic compensatory effect points out that the processes of unvaried type are run in researched spirits with swampy stream.

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Олександра Свиридюк

RUSYNS AS AN ETHNIC GROUP

Nowadays we can face different historical and cultural aspects, considered to be rather disputable. The East Slavic people have become the point in the investigations of many foreign as well as native modern scientists. But there is still much space for deep and all-