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To: **Prof. Sara Snogerup Linse,**

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Subject: Nominating Dmitry V.Schur, Svetlana Yu.Zaginaichenko, T. NejatVeziroglu for the Nobel Prize of 2016 in Chemistry

Dear Professor Linse:

The very important complex scientific problem of the synthesis and revealing of the structural features of the fullerene C_{60} molecule has been solved in the paper "The hydrogenation process as a method of investigation of fullerene C_{60} molecule", and this nanostructural material of the future, for example, as a modifier, imparts a new unique, very special physico-chemical and physico-mechanical properties to the

materials. Therefore, the relevance of the theme of this investigation is beyond any reasonable doubt.

The authors Dmitry V.Schur, Svetlana Yu.Zaginaichenko and T.Nejat Veziroglu have received a number of fundamentally new, significant scientific results that are justified on the basis of both their experiments, and with the assistance of some results from literary sources. As this takes place, it is necessary to stress radically that at each stage of theoretical investigations the pioneering results has been received and these achieved novel results provide an opportunity to form a new, improved presentation both in the theory of the C_{60} structure - spherical systems, their synthesis, extraction, crystallization of fullerenes and in their use in the conditions of fragmented representation in the processes of formation of materials with complex of preassigned desired properties.

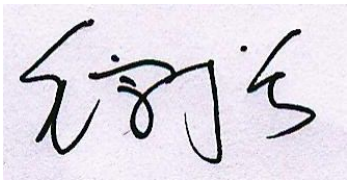
Their justified scientific results can be stated in the following sequence: 1)examining the behavior of the fullerene C_{60} in the plasma state, the elaboration of theoretical ideas that molecule C_{60} consists of five-atomic molecules, which cycles in the molecule C_{60} perform the function of the structure-forming, has been carried out; 2) classification of three stable modifications of the C_{60} molecules, existing at different thermodynamic conditions - α ($T \cong 0 \div 86K$); β ($T \cong 86 \div 280K$), γ ($T \geq 280K$), has been proposed and this investigation has been conducted in solutions (β- and γ-isomers) and in the solid state (α-, β- and γ-isomers); 3) it has been found by experiments that in the β - state

molecule C_{60} forms the true solution and in the γ – state the fullerene-toluene complex is formed; 4) the experimental phase diagram of the C_{60} molecule in solution has been constructed; it has been found that dualism of molecule C_{60} is manifested in the presence of molecule as colloidal particle, which form the colloidal system; 5) in the solid the molecule C_{60} exist in the form of three isomers (α, β and γ), so the changes that occur during crystallization, depolymerization and phase transitions in the solid state (under changes of temperature T and pressure P) is a consequence of the tautomeric variations in the molecule C_{60} itself; 6) it has been proposed the spatial diagram of carbon allotropic modifications that connected with different types of hybridization of s - and p - orbitals; 7) the examples of practical use of fullerenes have been listed.

I write You this letter because I want to nominate Dmitry V.Schur, Svetlana Yu.Zaginaichenko and T.Nejat Veziroglu to receive the Nobel Prize for Chemistry in 2016 after reading their publication in International Journal of Hydrogen Energy, 2015, Vol.40, № 6, P.2742-2762.

With all good wishes to You and colleagues, I am

Sincerely yours,



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