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

I am firmly believe that scientists Dmitry V.Schur, Svetlana Yu.Zaginaichenko and T.Nejat Veziroglu published an joint article entitled "The hydrogenation process as a method of investigation of fullerene C_{60} molecule" (IJHE, 2015, Vol.40, № 6, P.2742-2762) deserve the Nobel Prize for Chemistry.

More than two decades they work together constantly on the problem of the synthesis and study of properties of carbon nanostructures and much progress toward an understanding of structural transformations in molecule of fullerene has been achieved.

In the paper being discussed it has been shown experimentally that in the solutions the existence of fullerene molecules in the form of two isomers (β and γ) has been confirmed:

a) the authors of this paper have demonstrated experimentally that the fullerene molecule in solutions at temperatures above 250 K can come (depending on temperature and pressure) in one of two states, β or γ;

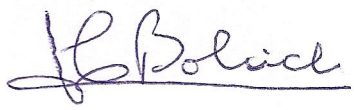
b) their experimental investigations have revealed that fullerene molecule forms a true solution in the β-state and fullerene-toluene complex - in the γ-state;

c) it has been proved experimentally that the increase in pressure at fullerene dissolution stabilizes the fullerene molecule in the β-state, thereby increasing the solubility;

d) the state diagram of the fullerene molecules in solution has been constructed experimentally;
e) these scientists have proved experimentally that in the solutions the dualism of the fullerene molecule manifested in the fact that being a molecule it behaves as a colloid particle forming the colloidal systems.
Thus, in the present paper its authors have shown that the concept of the existence of three stable isomers and the smooth transition between states allows in the consideration of many physical and chemical effects to answer not only the question of how, but why as well ?

It is remarkable, the scientific discovery of the detailed fullerene structure and one of the main allotropic modifications of carbon. This allows the tech development for very high hydrogen sorption properties and applications of fullerenes.

With best wishes for the success of the program instituted by your organization.
Sincerely yours,



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