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Nuclear-Molecular Version of Processes of Dynamical Self-organization of Solar Interiors and their Possible Role in Formation of Solar Activity

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The new model of solar interior structure is discussed. It is consistent with results of years INR RAS measurements of solar neutrino fluxes and with the multi-year observations of 160-minute solar atmosphere oscillations in the Crimean astrophysical observatory. The model is based on two hypotheses:

1. There is a slightly subadiabatic solar troposphere under the superadiabatic convective zone, which is a resonator for 160-minute *g*-mode oscillations.
2. In addition to thermal branch of *pp*-reaction of hydrogen chain, which gives the main contribution into solar luminocity, there is a side nuclear-molecular catalytic brunch of *pp*-reaction, which gives a small contribution into solar luminocity, but controls solar activity and supplies energy to processes of dynamical solar interiors self-organization which are responsible for vigorous solar activity.

This new model can justify the necessity of further searches and investigations of non-stationary solar neutrino fluxes.

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