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After this article was sent to press, the author has learned of three other papers [10, 11, 12] dealing with solar neutrinos. Models with possible mixing of the internal layers of the sun are considered. It is shown that the mixing processes, whose periods range from 1 to 100 million years, can change the parameters of the central region of the sun and by the same token decrease the neutrino emission appreciably.

We note also that when assessing the effect of mixing on the photon luminosity the authors of [10, 11, 12], apparently following Fowler [4], assume the time of photon diffusion from the center of the sun to the outside to be equal to the Kelvin time of contraction, $\tau_K \sim 3 \times 10^7$ years. The latter, however, characterizes only the time during which the star can maintain its luminosity at the expense of gravitational energy.

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CONCERNING THE PHOTOSTIMULATED DIFFUSION IN SILICON

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Reply to remarks by Sh.R. Malkovich and I.V. Nistiryuk with regards to [1].

In connection with the remarks by Sh.R. Malkovich and I.V. Nistiryuk [2] we note the following: 1. Control experiment with complete elimination of the adsorption effect confirm the photosimulated diffusion (FSD) of gold in silicon (the depth of penetration for the conditions of [1] is ~4 μ). 2. The FSD depends on the character of the oxide film on which the gold is deposited. In the case of films with sufficiently perfect structure, a negative result may be obtained when FSD is obtained under the conditions of [1]. 3. The data on the acceleration of diffusion by low-energy radiation [3], obtained with the procedure of [1], require only slight quantitative refinement with allowance for the adsorption effect.

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