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Neutrino Flux
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In the present work, a development [1], the flavor structure of the 7Be solar neutrino (SN) flux is investigated.
The electron spectrum of the (ν_e)$\bar{}$e-scattering differs from the fairly flat spectra of all neutrinos. Such difference will open the way for the Borexino Collaboration to search for an antineutrino admixture in the SN flux [2].
If the part of this flux transforms into neutrinos of the second and third generations and related antiparticles $\bar{\nu}$e, the total electroweak spectrum of recoil electrons can be written in the form:

$$(d\sigma/dT)_{tot} = P(\nu_e)\,(d\sigma(\nu ee))/dT + P(\nu_{(\mu,\tau)})\,(d\sigma(\nu_{(\mu,\tau)}\, e))/dT + P(\bar{}\nu_e)\,(d\sigma(\bar{\nu}ee))/dT\,, \quad (1)$$

where T is the kinetic energy of the final electron.
The table
$P(\bar{}\nu_e)\,(d\sigma/dT)_{tot}$
0 [0.28; 0.36]
0.05 [0.27; 0.39]
0.1 [0.27; 0.41]
0.2 [0.26; 0.46]
0.3 [0.25; 0.51]
shows the results of calculations based on the Borexino data: a limit of the conversion probability $P(\nu_e \to \bar{\nu} e) < 0.35$ *(90% C.L.) for 862 keV 7Be neutrinos [2], under the assumption of* ν_e *transition to other active neutrino flavors, the SN survival probability* $P(\nu_e) = 0.51 \pm 0.07$ [3].
Each spectrum is presented by ten values of the differential cross sections, corresponding to the recoil electron kinetic energy for the kinematically allowed escape angles, determined by the segment [0°; 90°].
The graphical image of these spectra is presented in the form of figures.

1. Yu.I. Romanov // Bull.RAS. Phys. 2015. V. 79. P. 945.
2. G. Bellini et al. (Borexino Collaboration) // Phys. Lett. B. 2011. V.696. P.191.
3. G. Bellini et al. (Borexino Collaboration) // Phys. Rev. Lett. 2011. V.107. P.141302.

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