

New Tm-containing bolometer for resonant absorption of solar axions.

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A search for resonant absorption of the solar axion by ^{169}Tm nuclei will be performed using the Tm-containing bolometers installed inside the low-background setup at the underground laboratory. The thulium crystal $\text{Tm}_3\text{Al}_5\text{O}_{12}$ have been grown and tested for the first time as a bolometric detector. The expected sensitivity of 1 kg Tm-bolometer to axion-photon g_A and axion-electron g_{Ae} coupling constants for axions with mass in the range (10 eV - 8 keV) is stronger than the present astrophysical limits.

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