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Few-body reactions investigated via the Trojan Horse Method

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A review of the main applications of the Trojan Horse Method (THM) will be presented, focusing on reactions involving few-body systems. This indirect method exploits nuclei clustering properties to measure cross sections otherwise very difficult to get.

The THM has been applied to the sub-Coulomb proton-proton elastic scattering to investigate the suppression of the Coulomb field effects and to the deuteron-deuteron fusion channels, where interesting results for astrophysics and energy fusion power plants have been obtained.

Other results will be shown, such as those involving light nuclei Li, Be and B, and some preliminary results for the $^3\text{He}(n,p)^3\text{H}$ reaction.

Finally, new perspectives and research lines with the THM will be mentioned.

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