

^{57}Fe hyperfine parameters in vitamins and dietary supplements

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Mössbauer (nuclear gamma-resonance) spectroscopy was used to study various industrial samples of vitamins and dietary supplements containing iron ions which are used in treatment of anemia.. Determination of the iron state (Fe^{2+} or Fe^{3+}) in medications is important for evaluation of pharmaceuticals quality. The investigated samples containing ferrous bisglycinate, ferrous fumarate, ferrous gluconate and ferric diphosphate are non magnetic in room temperature. ^{57}Fe hyperfine parameters of studied pharmaceuticals indicate on existing of major iron ferrous compounds. However, Mössbauer spectra of investigated samples demonstrated presence of additional ferrous and ferric components probably related to impurities or to partially modified main component.