

Method for producing vanadium- and aluminum-alloyed titanium sponge involves the magnesiothermic reduction of purified titanium tetrachloride, followed by vacuum separation of the resulting reaction mass. During the magnesiothermic reduction process, vanadium-containing waste - obtained during the purification stage of technical-grade titanium tetrachloride - is introduced as a source of vanadium (the alloying element). This waste is added in the form of a mixture with titanium tetrachloride, along with aluminum, with the ratio of the alloying elements corresponding to that of the specific titanium alloy being produced.