

Thermodynamics of chemical and electrochemical stability of alloys of the Ti-Si system

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Abstract

A phase diagram of Ti-Si-O system state and a potential – pH diagram of Ti-Si-H₂O system at 25 °C, air pressure of 1 bar and activities of ions in solution equal to 1^{mole/l} are plotted with and without the account of titanium hydride and nitride formation are plotted. The corrosion-electrochemical behaviour of alloys in the Ti-Si system in aqueous media is considered.