

titanium, Ti

I 4300

30 - 019

Interaction of Titanium Dioxide with Sodium Fluoride and Sodium Carbonate.

— X-ray and thermogravimetric studies indicate, that two previously described modifications of NaTiO_2F are virtually mixtures of $\text{NaF} + \text{Na}_2\text{Ti}_6\text{O}_{13}$ (low-temperature α -form) and $\text{NaF} + \text{Na}_2\text{Ti}_3\text{O}_7$ (high-temperature β -form). Phase diagram studies in the Na_2TiO_3 - TiO_2 - NaF system result in the detection of five oxyfluoride phases, but only one equilibrium phase of empirical formula $12\text{NaF}\cdot 35\text{Na}_2\text{O}\cdot 53\text{TiO}_2$. This phase possesses marked cation conductivity. — (NALBANDYAN, V. B.; Zh. Neorg. Khim. 45 (2000) 4, 581-585; Rostovskii gos. univ., Rostov-na-Donu 344071, Russia; RU)