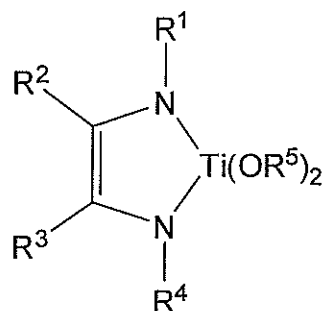


ABSTRACT

A subject for the invention is to provide novel titanium complexes which have a high vapor pressure and high thermal stability and serve as an excellent material for producing a titanium-containing thin film by a technique such as the CVD method or ALD method and to further provide processes for producing these complexes, titanium-containing thin films produced from the complexes, and a process for producing the thin films. The invention relates to producing a titanium complex represented by general formula (1):

[Chem. 1]



(1)

(wherein R¹ and R⁴ each independently represent an alkyl group having 1-16 carbon atoms; R² and R³ each independently represent a hydrogen atom or an alkyl group having 1-3 carbon atoms; and R⁵ represents an alkyl group which has 1-16 carbon atoms and may have been substituted with one or more fluorine atoms) and to producing a titanium-containing thin film using the complex.