

**Tris(4-hydroxy-3,5-diisopropylbenzyl)amine as a new bridging ligand for novel trinuclear titanium complexes**

김소한, 윤성우, 문상덕, 이준승<sup>1</sup>, 김영조\*  
충북대학교 화학과; <sup>1</sup>전남대학교 화학과  
(ykim@chungbuk.ac.kr\*)

The commercial importance of syndiotactic polystyrene (sPS) has inspired to much effort to develop more effective catalysts for its polymerization. A variety of half-sandwich titanium complexes have been tested as catalysts for the syndiospecific polymerization of styrene. Despite excellent initiators having been reported, the search for new catalysts for generating sPS remains of interest. Multinuclear titanocene complexes with more than two linked active centers per molecule have shown cooperative catalytic properties in olefin polymerization. Most previous work on multinuclear titanocene complexes has focused on dinuclear complexes. There are no reports of trinuclear titanocene catalysts with well defined aryloxy or alkoxy linkers. In this regard, we report here the synthesis and characterization of trimeric titanium complexes and their syndiospecific polymerization of styrene. Their catalytic properties will be directly compared with those of other known titanium complexes. The solid state structure of tris(4-hydroxy-3,5-diisopropylbenzyl)amine will be also shown.