

## Special Issue

# State-of-the-Art of Ziegler-Natta Catalysis

### Message from the Guest Editor

The point is that the nature of Ziegler–Natta catalytic systems is still far from intimate understanding. First of all, this is due to their structural complexity, in which each of the components is fundamentally important for the activity and efficiency of the formed system.

Therefore, chemistry of the interaction between all the main components of the systems should be interpreted and rationalized at the molecular level. These components include transition metal complex, support ( $\text{MgCl}_2$ ,  $\text{SiO}_2$ , etc.), cocatalyst  $\text{AlR}_n\text{X}_{3-n}$  ( $\text{R}$  – alkyl,  $\text{X}$  – halogen),  $\alpha$ -olefin acting as a monomer, and modifier(s) (the Lewis base also called a “donor”), as well as uncontrolled impurities inevitably entering the reaction system (for example, with water or oxygen). This Special Issue is devoted to the most recent advances in the field of the Ziegler–Natta catalysis of  $\alpha$ -olefin hydrogenation, oligo-/polymerization and copolymerization processes.

### Guest Editor

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