



Foreign Winner		◀
Third Winner	Rank	◀
Applied Research	Category	◀
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Indian	Nationality	◀
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Degradation and Stabilization of Polymers	Project Title	◀
Abstract		◀

Synthesis of functional poly(olefin)s using metallocene and late transition metal catalysts resulting in poly(olefin)s having well defined functional groups randomly distributed along the polymer chain or on chain ends, is an emerging area of active interest. Such functional groups introduced some hydrophilic &/or otherwise hydrophobic poly(olefin)s as well as enable the synthesis of novel graft or block copolymers having a wide range of applications.

In this project, we intend to use the substituted polar comonomers and to explore the lower oxophilicity of the late transition metals.

In recent years, the emphasis has been on to minimize dose level, prolong the additive action, prevent leaching/migration and minimize undesirable colour to the polymer. Most of the recent excitements in radiation, thermal and photo-stabilization, centers around hindered amine light stabilizers (HALS). Both in terms of value and volume, HALS out perform the benzophenones and benzotriazoles. The present study also proposes a novel approach for the design and synthesis of polymeric or polymer-bound HALS