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“New catalysts for selective ethylene oligomerization”

Ethylene oligomerization to linear alpha olefins conventionally yields a Schulz−Flory distribution of products, such that less valuable products (C4 and C12+) are made in significant quantities. We present several molecular catalyst design strategies toward selective oligomerization processes and experimental data on novel catalysts. Effects of varying the metal center, the ligand sterics, and the ligand-surface attachment chemistry are explored.