**Chromium-catalyzed ethylene oligomerization: strategies to address polyethylene fouling**

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A major challenge of chromium-catalyzed ethylene oligomerization is undesired polyethylene formation, which can foul the reactor, causing operational downtime and commercial non-viability. Ideally, optimized catalysts can retain excellent activity and selectivity toward oligomers while eliminating polyethylene formation. We have tackled this challenge through a combination of molecular modelling, ligand design, surface functionalization, and catalytic testing.