

OLIGOMERIZATION OF ALPHA OLEFINS USING METALLOCENE-SSA CATALYST SYSTEMS AND USE OF THE RESULTANT POLYALPHAOLEFINS TO PREPARE LUBRICANT BLENDS

ABSTRACT

This disclosure provides for alpha olefin oligomers and polyalphaolefins (or PAOs) and methods of making the alpha olefin oligomers and PAOs. This disclosure encompasses metallocene- based alpha olefin oligomerization catalyst systems, including those that include at least one metallocene and an activator comprising a solid oxide chemically-treated with an electron withdrawing anion. The alpha olefin oligomers and PAOs prepared with these catalyst systems can have a high viscosity index combined with a low pour point, making them particularly useful in lubricant compositions and as viscosity modifiers.

Fig 1.