

- 1 -

HYDROGENATION PROCESSAbstract

5 A hydrogenation process for reducing the
unsaturation of lubricants uses a catalyst which is
based on an ultra-large pore crystalline material. The
crystalline material has pores of at least 1.3 nm (13
Å) diameter arranged in a uniform manner and exhibits
unusually large sorption capacity demonstrated by its
benzene adsorption capacity of greater than 15 grams
10 benzene/100 grams (6.7 kPa/50 torr and 25°C). A
preferred form of the catalyst has a hexagonal
structure which exhibits a hexagonal electron
diffraction pattern that can be indexed with a d_{100}
value greater than 1.8 nm (18 Å). The hydrogenation
15 catalysts based on these materials are capable of
reducing the unsaturation in poly alpha olefin
lubricants to a low level.

FIGURE 1 IS SUGGESTED FOR PUBLICATION

REPLACED SHEETS		SC
☒ Description	: paged <u>2</u> to paged <u>67</u>	
☒ Claim(s)	: paged <u>48</u> to paged <u>71</u>	
☒ Drawing(s)	: paged <u>21</u> to paged <u>2</u>	
☒ Abstract	: paged <u>21</u> to paged <u>2</u>	
DATE OF RECEIPT		

This Sheet Has Been Replaced

