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## ABSTRACT OF THE DISCLOSURE

# A PROCESS FOR PRODUCING A LUBRICANT BASE OIL HAVING IMPROVED OXIDATIVE STABILITY

The instant invention is directed to a process for producing an improved lubricating base stock having a preselected desired oxidation stability comprising the steps of: (a) hydroisomerizing a hydrocarbon wax to obtain a lubricating base stock, (b) irradiating, within the frequency of about 4600 to about 3500 $cm^{-1}$ or about 1300 to about 600 $cm^{-1}$, said lubricating base stock produced from hydroisomerization of said hydrocarbon wax, (c) measuring the absorption spectrum, within said frequency range of step (b), of said lubricating base stock using FT-IR, (d) converting said absorption spectrum into a number representative of the viscosity index of said lubricating base stock of step (a), (e) comparing the viscosity index produced in step (c) to a preselected viscosity index correlating to a preselected desired oxidative stability for said lubricating base stock of step (a), and then, (f) modifying said hydroisomerization of said hydrocarbon wax to increase the production of lubricating base stock having said preselected desired oxidative stability of step (e).

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