



BIOFUELS CO-PROCESSING VALIDATION REPORT

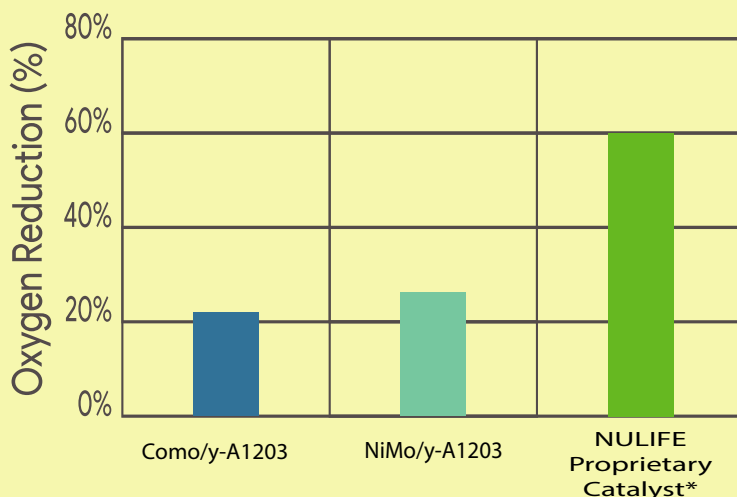
'The greatest challenge that is and will continue to be encountered during the conversion of biomass into drop in biofuels **is the removal of the oxygen'**

IEA Bioenergy Task 39, Drop-In Biofuels 2019 Report

'NULIFE's oxygen reduction catalyst has the potential to help unlock the advanced biofuels market'

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OXYGEN REDUCTION ACHIEVED



REFINERY CONCERNS OF BIO OILS

- High oxygen levels
- Incompatible with refinery feed
- High hydrogen consumption
- High acidity
- High viscosity
- Instability of oil
- Low miscibility

NULIFE PROPRIETARY CATALYST

- NULIFE has created a proprietary catalyst to remove oxygen from bio-crude oils.
- 60% oxygen reduction has been achieved.
- Testing is underway on other bio oils and advanced biofuels with our catalyst.

RESULTS FROM PROPRIETARY CATALYST

- ▼ Hydrogen Consumption
- ▼ Cost
- ▼ Acidity
- ▼ Viscosity
- ▲ Stability of oil
- ▲ Miscibility
- ▲ Greenhouse Gas Reduction