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INTRODUCTION

- Palm oil can be value added through cross-metathesis process with the purpose to convert it to the compounds with lower molecular weight and fatty acids having terminal double bonds which is used as a feedstock for polyol production.
- Metathesized triglycerides (mTAGs) are truncated versions of the natural oil feedstock with unique terminal unsaturation content

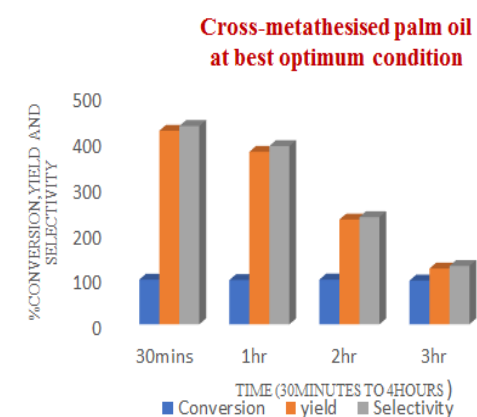
OBJECTIVE

To transform palm oil to high performance chemicals

NOVELTY

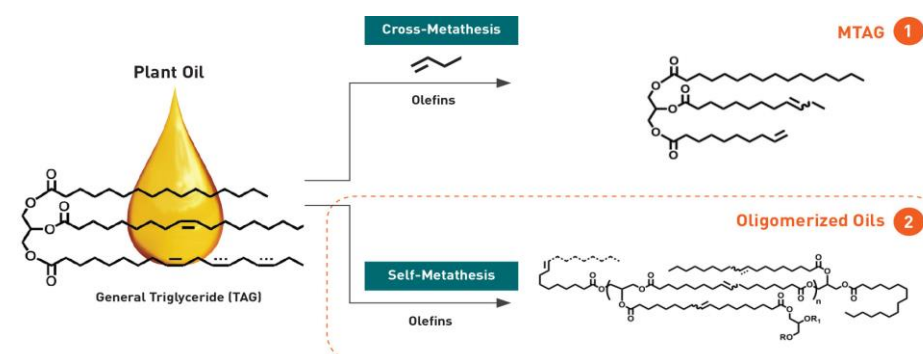
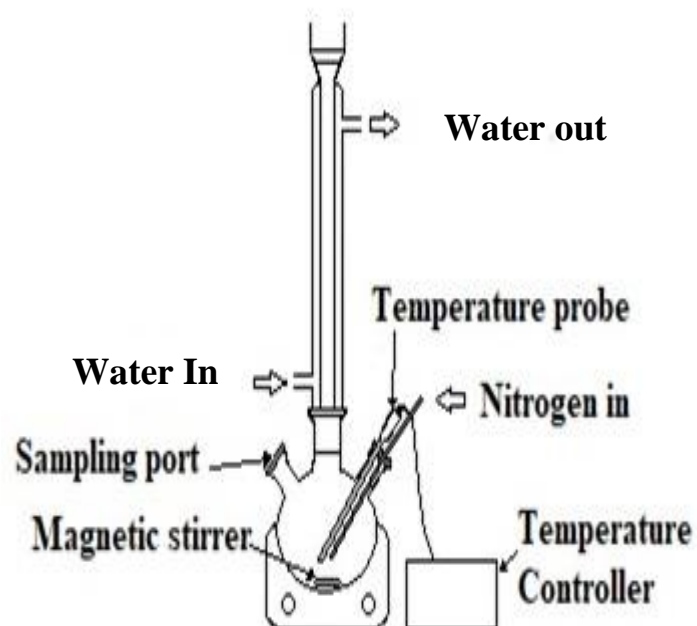
- A new and stable process to transform palm oil to high performance chemicals.

PROCESS



	Conversion	Yield	Selectivity
Cross-metathesised Palm oil at best optimum condition	97.64 (Mol %)	228.52(Mol %)	234.02(Mol %)

EXPERIMENTAL SETUP



ADVANTAGES

- Fully renewable feedstocks
- Products are bio-based
- Low impact process on the environment
- Readily Bio-degradable

PRODUCTS PRODUCED

- 1-Decene
- 3-Dodecene
- Glyceryl Triundecanoate
- 9-Octadecene

PUBLICATION

- Cross Metathesis of Plant oil-A mini review on reaction condition and catalysis. IOP Conf. Series: Materials Science and Engineering 991 (2020) (Scopus Index)

REFERENCES

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- Patel, J., Mujcinovic, S., Jackson, W. R., Robinson, A. J., Serelis, A. K., & Such, C. (2006). High conversion and productive catalyst turnovers in cross-metathesis reactions of natural oils with 2-butene. *Green Chemistry*, 8(5), 450-454.