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(57) Abstract :

A fuel blend and a method of synthesising the same are disclosed. Said fuel blend broadly comprises algal oil and waste cooking oil. Said algal oil is synthesised, from *Chlorella variabilis*. Said *Chlorella variabilis* broadly comprises a sequence corresponding to GenBank Accession Number MK039712.1. Said algal oil and said waste cooking oil are in a ratio that ranges between about 1:0.4 and about 1:9. The disclosed fuel blend and method of synthesis offer at least the following synergistic advantages and effects: facilitate conversion of waste cooking oil, into value-added products; produce lower emissions, when compared with those of conventional fuels; offer parameters that are comparable, with those of conventional fuels; offer superior oxidation stabilities; offer high yields (up to about 98%); and do not require any modifications, to be made to diesel engines.

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