Supplementary Data

S1: Table for Elemental analysis of BBP catalyst based on EDX analysis

Elements	Weight %	Atomic %
C	11.92	20.20
O	43.31	55.14
Mg	1.90	1.59
Si	1.57	1.14
P	2.67	1.76
S	0.97	0.62
K	34.26	17.85
Ca	3.27	1.66
Fe	0.13	0.05

Table S 2: %yield of Biodiesel at different catalyst loading

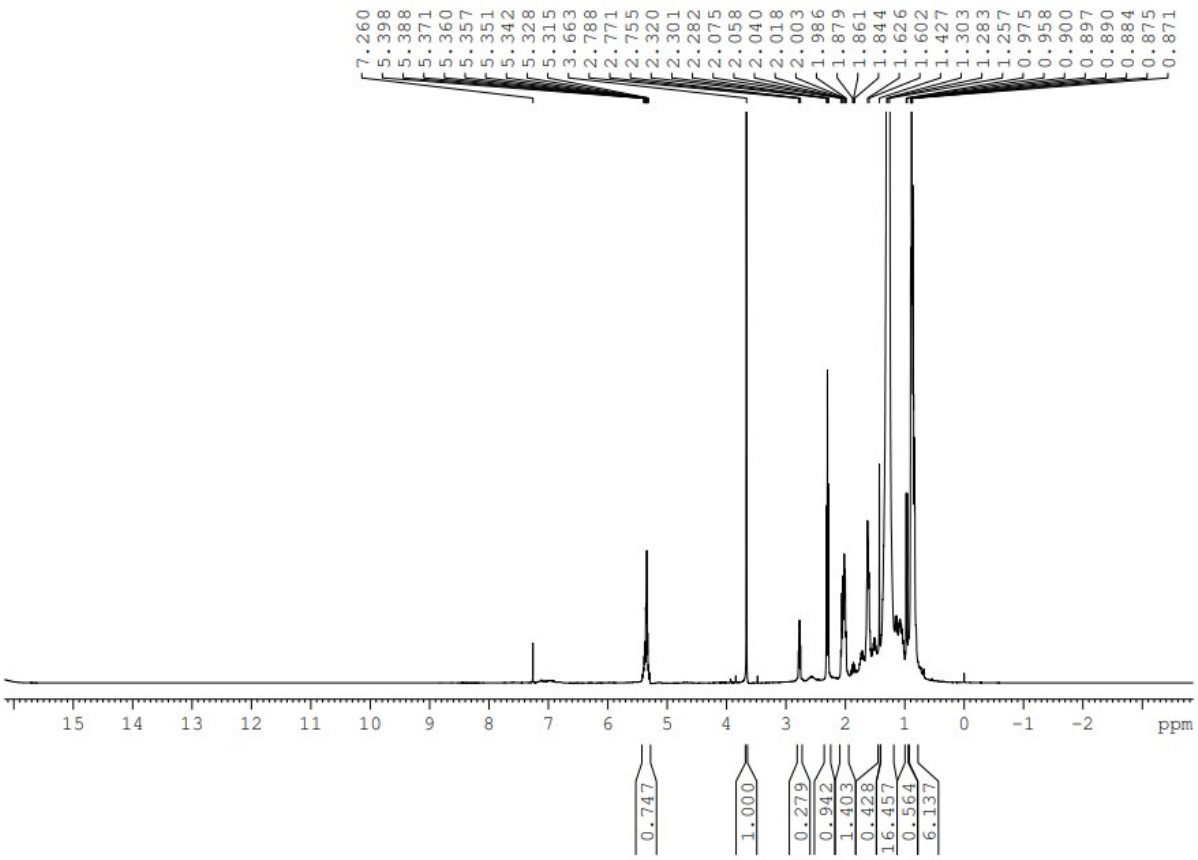
Methanol	Catalyst	Reaction temperature	Total time	Yield%
9ml	0.031gm	60◦C	52 min	90
9ml	0.06gm	60◦C	40 min	94
9ml	0.09gm	60◦C	32min	97
9ml	0.12gm	60◦C	30min	96

Table S 3: %yield of Biodiesel at different methanol/oil ratio

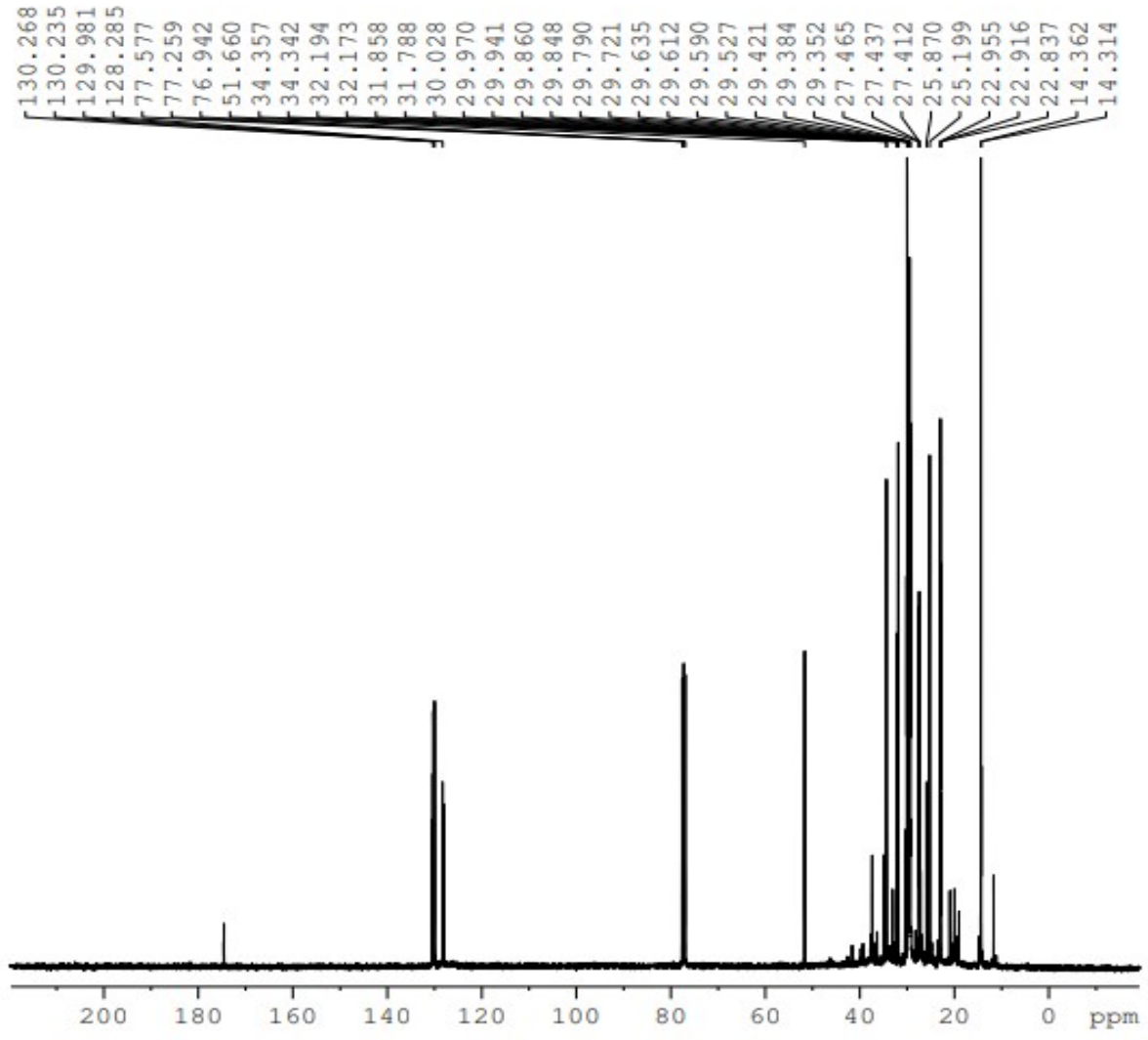
Methanol	Catalyst	Reaction temperature	Total time	Yield%
3ml	0.09gm	60◦C	65 min	95
6ml	0.09gm	60◦C	40 min	96.4
9ml	0.09gm	60◦C	32 min	97
12ml	0.09gm	60◦C	30min	97

Table S 4: %yield of Biodiesel with temperature variation

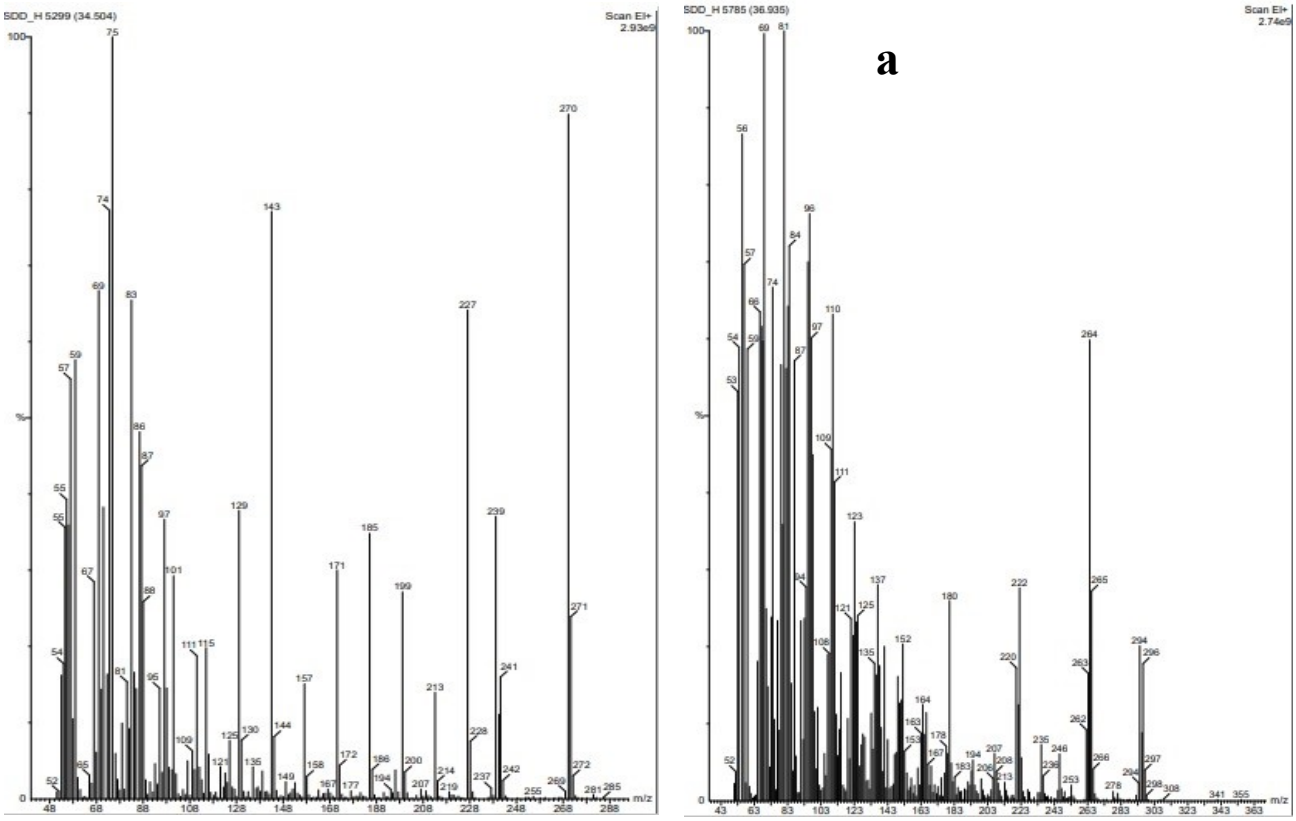
Methanol	Catalyst	Reaction temperature	Total time	Yield%
9ml	0.09gm	55◦C	37 min	95
9ml	0.09gm	60◦C	32 min	97
9ml	0.09gm	65◦C	30 min	97.2
9ml	0.09gm	70◦C	52min	96



S5. ^{1}H NMR spectrum of biodiesel obtained from sesame oil



S6. ^{13}C NMR spectrum of biodiesel obtained from sesame oil



S7. Mass spectrum of (a) Methyl palmitate & (b) Methyl linoleate