

## Supporting Information

**Table S1** Catalytic evaluation of different catalysts for esterification of FFAs and alcohols

	Catalysts	Acid	Alcohol	T(°C)	t(h)	FFAs Conv.(%)
Homogeneous	H <sub>2</sub> SO <sub>4</sub>	FFAs	2-ethylhexanol	130	2	94.0
	Pb sterate	FFAs	Methanol	210	3.3	90.0
	Relite CFS	FFAs	Methanol	100	2	74.0
Heterogeneous	Bagasse carbon-based solid acid	FFAs	Methanol	66	4	91.4
	SO <sub>3</sub> H-APC-6-160	FFAs	Methanol	70	6	89.7
	OMC-SO <sub>3</sub> H	FFAs	Ethanol	80	10	73.6
	SO <sub>3</sub> H-OMC(s)-6-160	FFAs	Methanol	70	6	93.8

**Fig. S1** The relationship between FFAs conversion and density of  $\text{-SO}_3\text{H}$  groups

