Catalytic characterization of synthetic K^+ and Na^+ sodalite phases by low temperature alkali fusion of kaolinite during the transesterification of spent cooking: kinetic and thermodynamic properties

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Table.S1. The determined fatty acid methyl esters in the obtained biodiesel sample over N.SD

Fatty acid methyl esters		
No	**Ester**	**Percentage (%)**
1	Palmitoleic acid methyl ester (C16:1)	31.76
2	Oleic acid methyl ester (C18:1)	29.7
3	Linoleic acid methyl ester (C18:2)	14.6
4	Myristic acid methyl ester (C14:0)	11.2
5	Palmitic acid methyl ester (C16:0)	7.3
6	Eicosanoic acid methyl ester (C20:1)	1.8
7	Stearic acid methyl ester (C18:0)	1.2
8	Caprylic Acid methyl ester (C8:0)	1.78
9	Behenic Acid methyl ester (C22:0)	0.84

Table.S2. the Fatty acid content and physical properties of the inspected spent oil

Fatty acid composition	
Fatty acid composition	**Percent**
Myristic acid ($C_{14}H_{28}O_2$) (C14:0)	**11.3 %**
Linoleic acid($C_{18}H_{32}O_2$) (C18:3)	**15 %**
Oleic acid ($C_{18}H_{34}O_2$) (C18:1)	**30.6 %**
Palmitoleic ($C_{16}H_{30}O_2$) (C16:1)	**33.8 %**
Eicosanoic acid ($C_{24}H_{48}O_2$) (C20:1)	**2.5 %**
Palmitic acid ($C_{16}H_{32}O_2$) (C16:0)	**2.3 %**
Stearic acid ($C_{18}H_{36}O_2$) (C18:0)	**1.8 %**
Physical properties	
Molecular weight	922 g/mol
Acid value	2.23 mg KOH/gm
Saponification value	187 mg KOH/gm
Kinematic viscosity	45.2 cSt