

Table 3. Comparison of reaction condition and results of previous works with acid catalysts.

Entry	Catalyst	Fatty acid	Alcohol	Yield	Recovery	Ref.
1	20%PW/ZrO ₂	oleic acid	Trimethylolpropane	84 %	2 times	[35]
2	Nb ₂ O ₅ /SBA-15	castor oil	Methanol	80 %	5 times	[36]
3	Ga-Zn/Al-SBA-15	tall	Methanol	86 %	2 times	[37]
4	MoZn/Al-SBA-15	tall	Methanol	92 %	2 times	[37]
5	Al-SBA-15	Tricaprylin + 20 wt. % palmitic acid	Methanol	87.4 %	-	[38]
6	MCM-41-SO ₃ H	olive-pomace oil	monoacylglycerols (GMO + GMP)	40 %	3 times	[39]
7	SBA-15-aminopropyl-Benzyl-SO ₃ H	Palmitic acid	Ethanol	96 %	6 times	This work

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