

Article

Supporting Information: Biocatalytic Pickering Emulsions Stabilized by Lipase-Immobilized Carbon Nanotubes for Biodiesel Production

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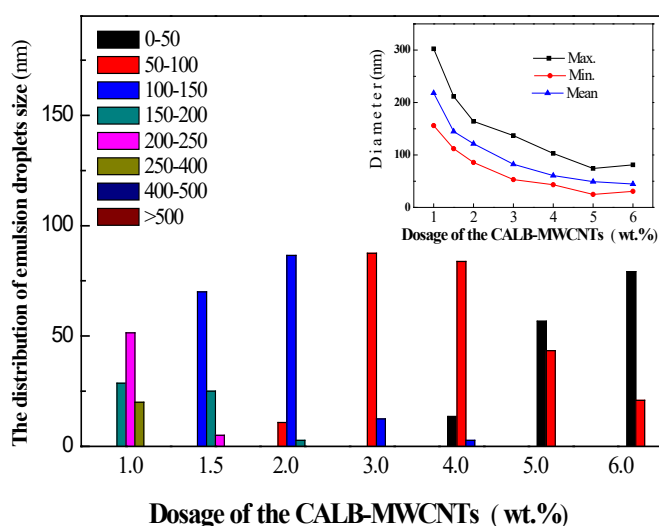


Figure S1. The relationship between the distribution of emulsion size and the dosage of CALB@MWCNTs.

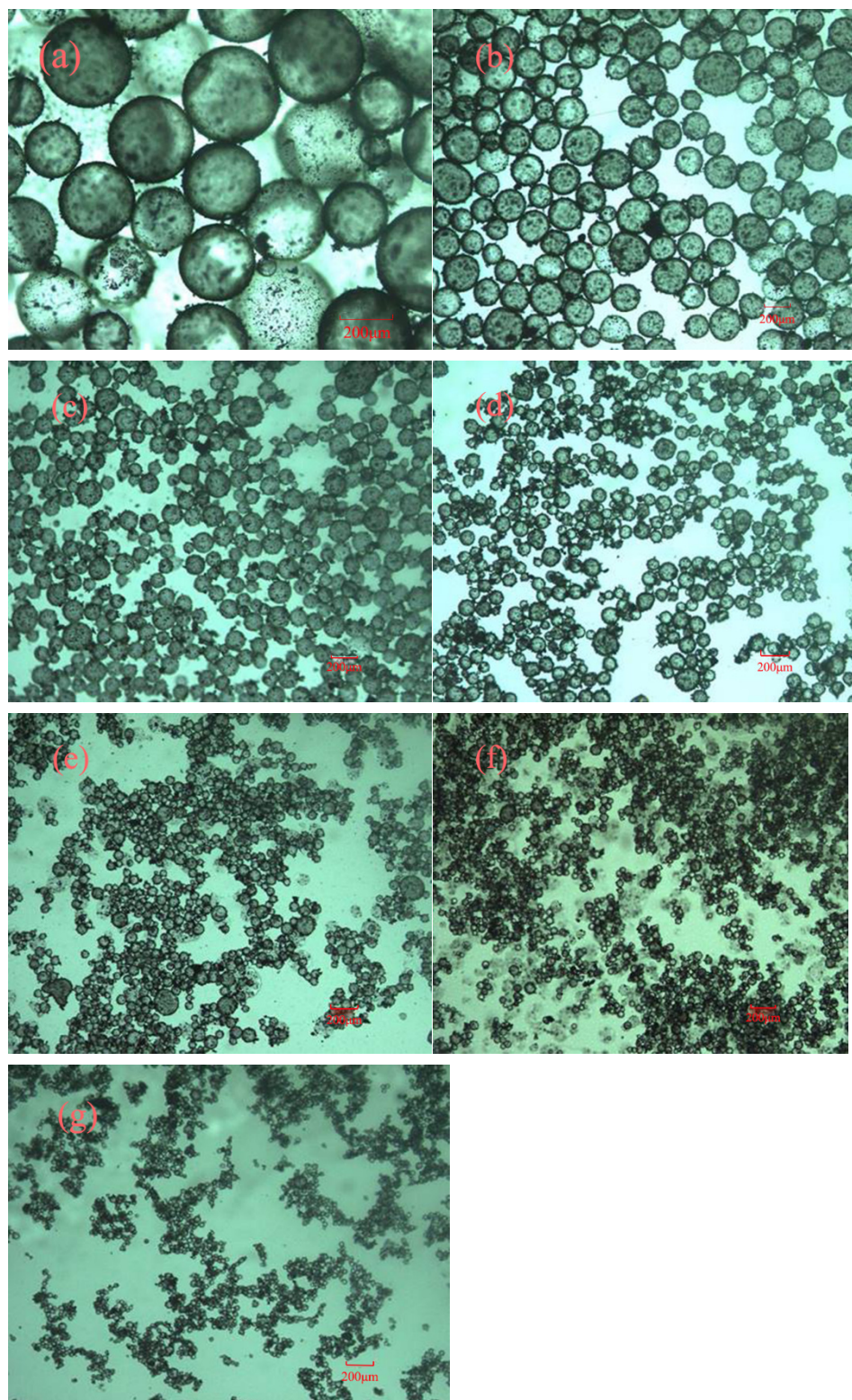


Figure S2. The images of CALB@PE with different CALB@MWCNTs dosage (a: 1%, b: 1.5%, c: 2.0%, d: 3.0%, e: 4.0%, f: 5.0%, g: 6.0%).

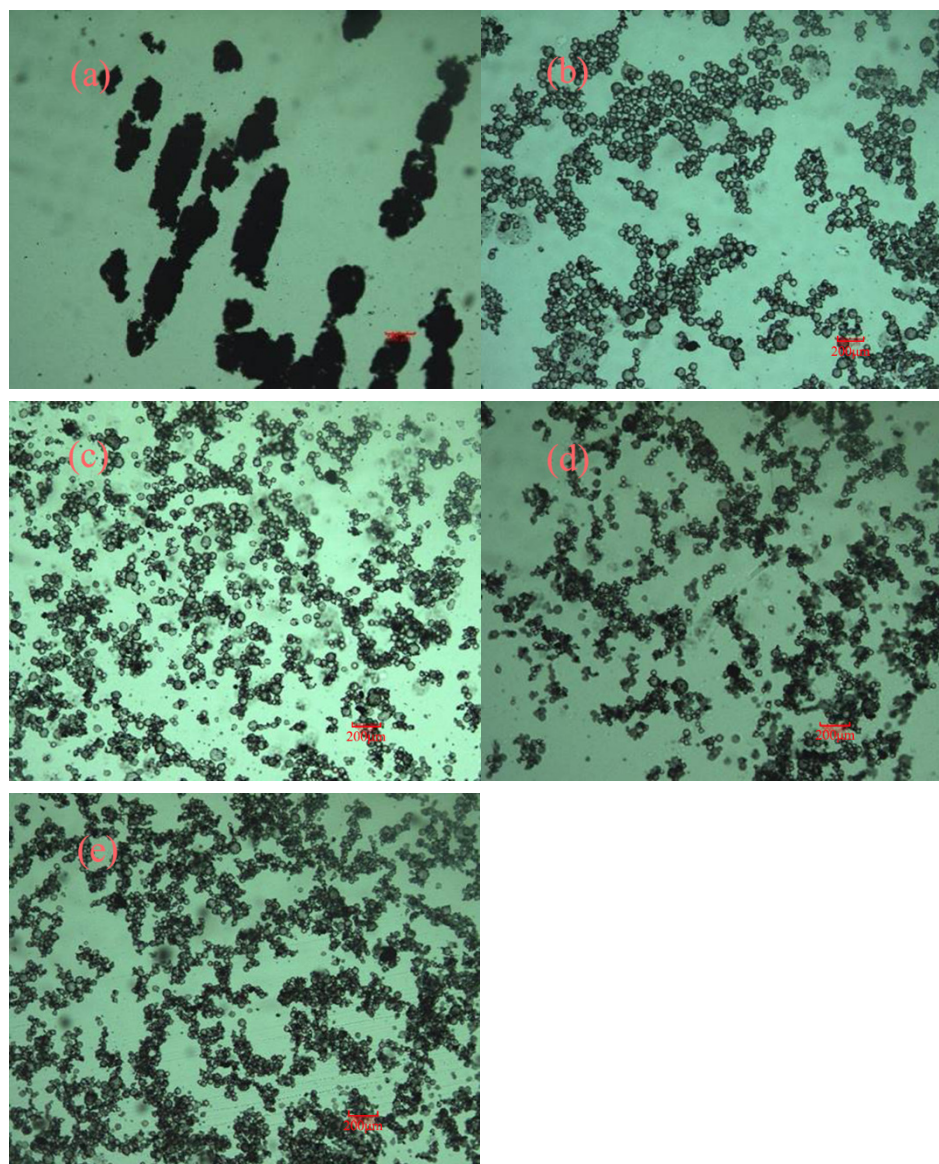


Figure S3. The images of CALB@PE with different ultrasonic emulsification time (a: 0 min, b: 5 min, c: 10 min, d: 15 min, e: 20 min).

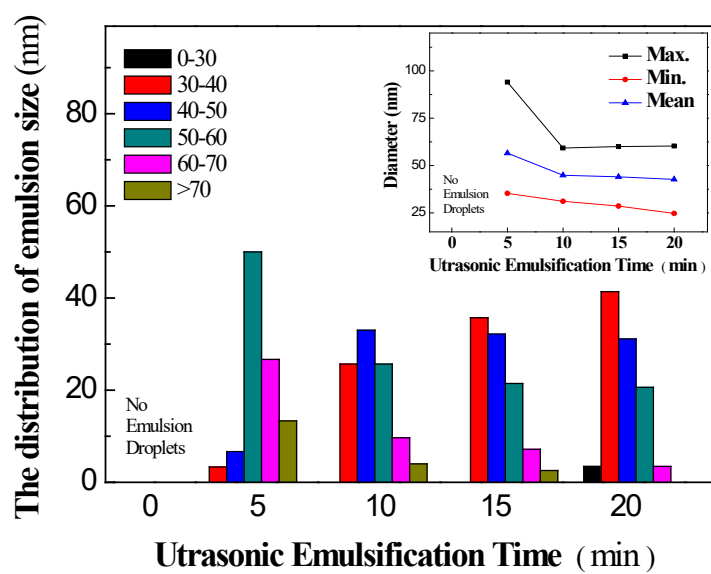


Figure S4. The interaction between the distribution of emulsion size and ultrasonic emulsification time.

Table S1. Comparison of the performance of CALB@PE with other enzyme catalysts in biodiesel production.

Catalyst	Oil	Alcohol to Oil ratio	Catalyst Dosage	T (h)	T (°C)	Biodiesel Yield (%)
CALB@PE	<i>J. curcas</i> L.seed	4.61:1	106.87 mg [7.1% (w/w)]	11.06	34.9	95.2
Lipozyme TL IM ^[1]	<i>J. curcas</i> L.seed	6:1	15% (w/w)	12	45	90.6
<i>Burkholderia cepacia</i> Lipase ^[2]	Jatropha oil	6.6:1	10% (w/w)	24	35	94.0
<i>Aspergillus oryzae</i> lipase ^[3]	Soybean oil	10.8:1	15% (w/w)	24	35	95.98

References

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3. Ying, H.; Zhang, L.F.; Wu, D.; Lei, Q.F.; Guo, Y.S.; Fang, W.J. Ionic strength-response hyperbranched polyglycerol/polyacrylic acid hydrogel for the reversible immobilization of enzyme and the synthesis of biodiesel. *Energy Convers. Manage.* **2017**, *144*, 303–311, DOI:10.1016/j.enconman.2017.04.056.



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