

Supplementary Materials

Bioreactor Rhamnolipid Production Using Palm Oil Agricultural Refinery By-Products

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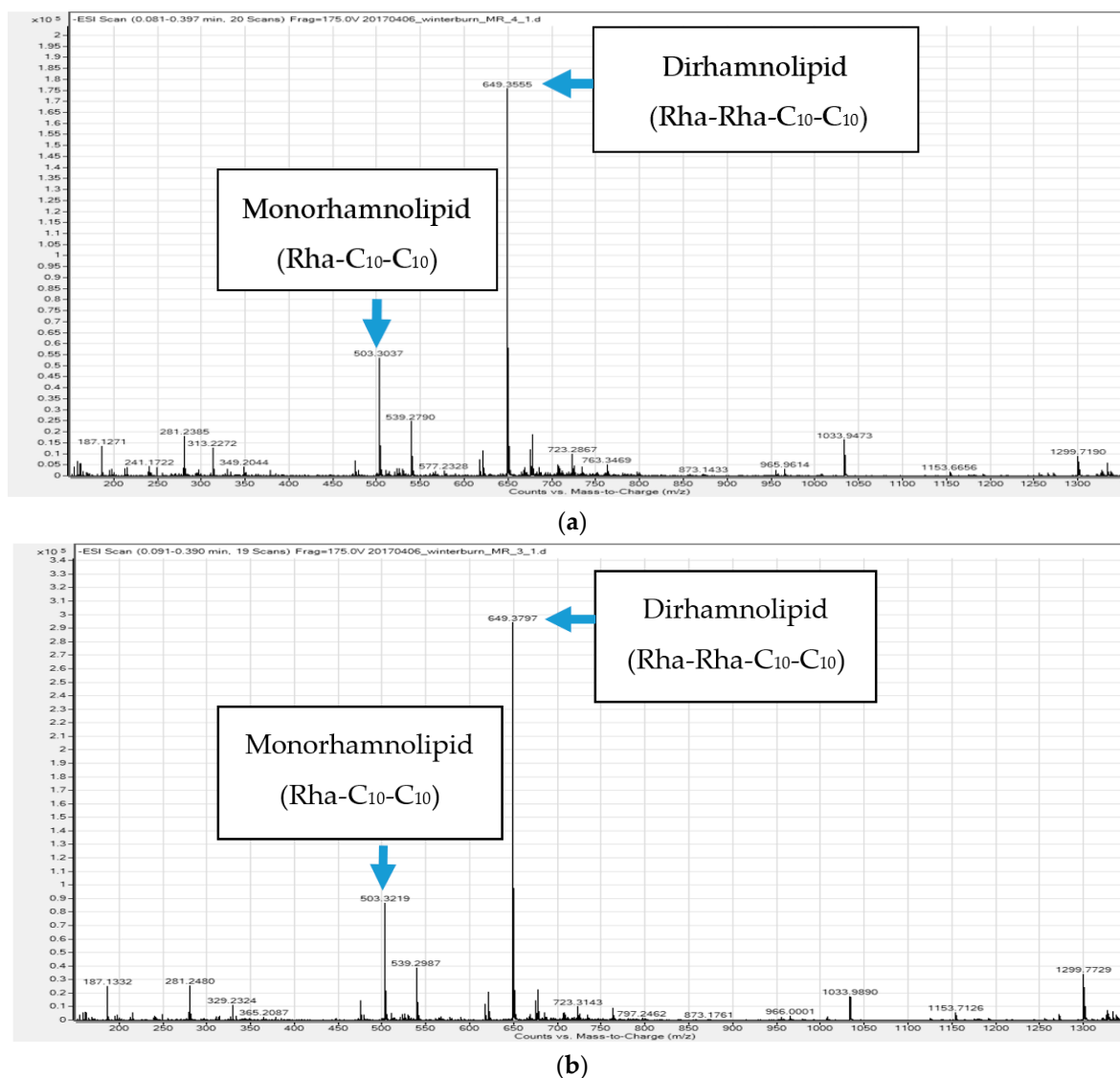


Figure S1. Biosurfactant Identification using GC-MS. (a) PFAD and (b) FAME.

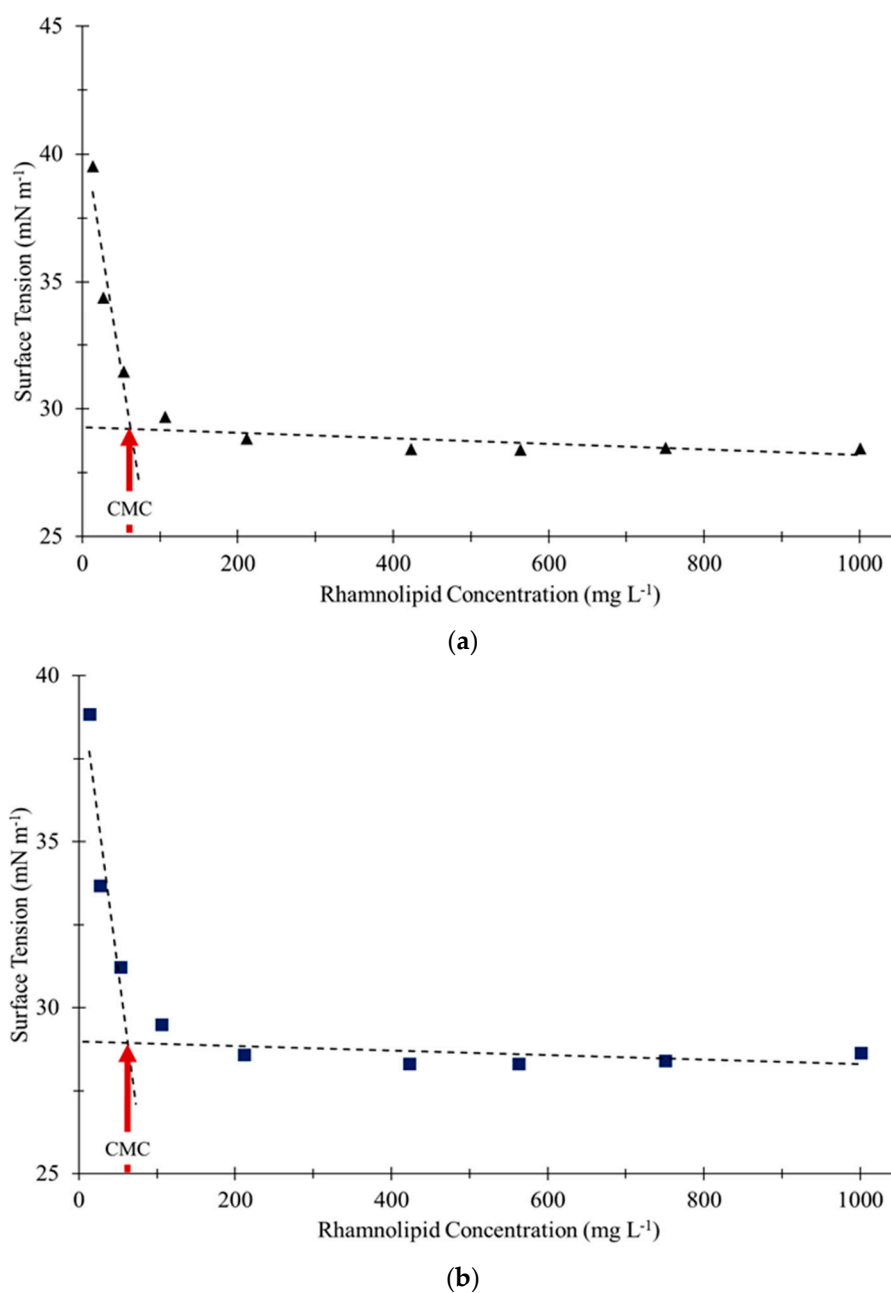


Figure S2. Rhamnolipid critical micelle concentration from (a) PFAD and (b) FAME.

Table S1. Critical micelle concentration determination using the intersection of two lines.

Substrate	Linear Equation (1)	Linear Equation (2)	CMC (mg L ⁻¹)
PFAD	$ST = -0.0011(RI) + 29.285$	$ST = -0.1908 + 41.027$	62
FAME	$ST = -0.0007(RI) + 28.987$	$ST = -0.1784(RI) + 40.077$	62

*Surface Tension (ST) and Rhamnolipid Concentration (RI).