

Accepted Manuscript

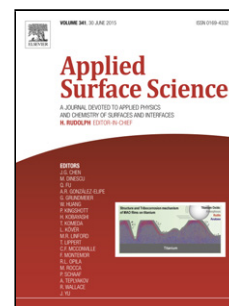
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PII: S0169-4332(17)32935-5
DOI: <https://doi.org/10.1016/j.apsusc.2017.10.012>
Reference: APSUSC 37355

To appear in: *APSUSC*

Received date: 25-6-2017
Revised date: 27-8-2017
Accepted date: 2-10-2017



Please cite this article as: Ying-ying Peng, Feng Lu, Qing-Xiao Tong, One-step Synthesis, Wettability and Foaming Properties of High-performance Non-ionic Hydro-Fluorocarbon Hybrid Surfactants, *Applied Surface Science* <https://doi.org/10.1016/j.apsusc.2017.10.012>

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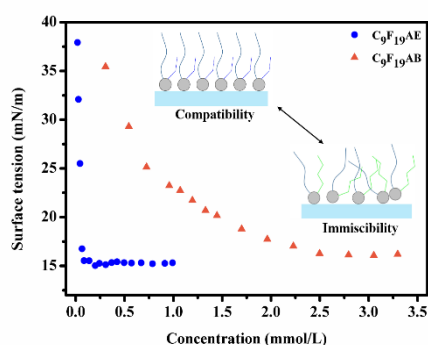
One-step Synthesis, Wettability and Foaming Properties of High-performance Non-ionic Hydro-Fluorocarbon Hybrid Surfactants

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Graphical abstract



Highlights:

1. A facile synthesis method with good yield is proposed to develop a series of non-ionic hydro-fluorocarbon hybrid surfactants based on amide group, an eco-friendly unit. Hybrid surfactants based on amide group were synthesized by a facile synthesis.
2. The length of hydro-carbon chains has a profound effect on the surface activity of hydro-fluorocarbon hybrid surfactants. The effects of hydrocarbon chain length on surface activity were discussed.
3. The surface activity, wettability and foaming performance of C₉F₁₉AE make it to be a state-of-the-art foaming agent. The foaming performance of C₉F₁₉AE make it to be a state-of-the-art foaming agent.

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