# Micellization properties of cardanol as a renewable

# co-surfactant

Supporting Information

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### 1. Spectrophotometric measurements















S4













#### 1.4 Triton X-100





#### 2. Surface tension measurements





















## 2.3 C<sub>14</sub>DMAO









#### 2.4 Triton X-100











## 2.5 SDS/Hydrogenated cardanol mixture (HC/SDS = 0.1) in the presence of Orange OT

Surfactant	Sample 1	Sample 2	Sample 3
Pure SDS	9.64×10 <sup>3</sup>	8.25×10 <sup>-3</sup>	
HC/SDS = 0.02	9.48×10 <sup>-3</sup>	9.66×10 <sup>-3</sup>	
HC/SDS = 0.04	1.02×10 <sup>-2</sup>	9.80×10 <sup>-3</sup>	
HC/SDS = 0.1	1.01×10 <sup>-2</sup>	1.04×10 <sup>-2</sup>	
Pure CTAB	1.36×10 <sup>-3</sup>	1.73×10 <sup>-3</sup>	1.62×10 <sup>-3</sup>
HC/CTAB = 0.02	1.46×10 <sup>-3</sup>	1.43×10 <sup>-3</sup>	1.44×10 <sup>-3</sup>
HC/CTAB = 0.04	2.18×10 <sup>-3</sup>	1.50×10 <sup>-3</sup>	1.56×10 <sup>-3</sup>
HC/CTAB = 0.1	1.85×10 <sup>-3</sup>	1.28×10 <sup>-3</sup>	1.67×10 <sup>-3</sup>
Pure C <sub>14</sub> DMAO	5.38×10 <sup>-4</sup> ; 2.88×10 <sup>-3</sup>	5.58×10 <sup>-4</sup> ; 2.49×10 <sup>-3</sup>	
HC/C <sub>14</sub> DMAO = 0.02	5.32×10 <sup>-4</sup> ; 3.02×10 <sup>-3</sup>	4.61×10 <sup>-4</sup> ; 2.28×10 <sup>-3</sup>	
HC/C <sub>14</sub> DMAO = 0.04	4.70×10 <sup>-4</sup>	4.55×10 <sup>-4</sup>	
HC/C <sub>14</sub> DMAO = 0.1	6.44×10 <sup>-4</sup>	5.84×10 <sup>-4</sup>	
Pure Triton X-100	5.48×10 <sup>-4</sup>	4.80×10 <sup>-4</sup>	6.37×10 <sup>-4</sup>
HC/Triton X-100 = 0.02	6.03×10 <sup>-4</sup>	6.03×10 <sup>-4</sup>	6.87×10 <sup>-4</sup>
HC/Triton X-100 = 0.04	6.07×10 <sup>-4</sup>	7.10×10 <sup>-4</sup>	6.24×10 <sup>-4</sup>
HC/Triton X-100 = 0.1	5.51×10 <sup>-4</sup>	6.18×10 <sup>-4</sup>	7.03×10 <sup>-4</sup>

 Table S1. CMC values (M) obtained by suface tensiometry.

### 3. DLS traces and correlation functions

### 3.1 SDS 3×10<sup>-2</sup> M





# 3.2 **HC**/SDS 0.1, SDS 1×10<sup>-2</sup> M



#### 3.3 CTAB 1×10<sup>-3</sup> M





# 3.4 **HC/**CTAB 0.1, CTAB 1×10<sup>-3</sup> M



# 3.5 C<sub>14</sub>DMAO 1×10<sup>-3</sup> M



# 3.6 HC/ $C_{14} DMAO$ 0.1, $C_{14} DMAO$ 1×10 $^3$ M



#### 3.7 Triton X-100 1×10<sup>-2</sup> M





