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Surfactant Properties of New Surface Active Agents Prepared From Unsaturated Fatty Acid

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ABSTRACT

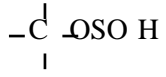
The aim of this research is to show that the insaturated fatty acids and their esters acquire quite interesting surfactant properties when they are sulfonated with SO₂ or HSO Cl.

They are of great interest by virtue of being derived from renewable natural source in addition to their surface tension lowering, foaming power, rapid biodegradability and excellent performance in hard water. Yet, they achieve an improvement in soap behaviour in hard water. Therefore this type of surfactant can form a particularly effective synergistic system.

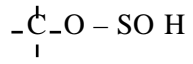
Key words: Surfactants, Oleic acid, Linoleic acid, Methyl oleate, Cetyl oleate, Methyl Linoleate.

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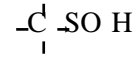
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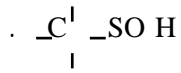
Sulfation



Sulfonation



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Et O - ClSO H

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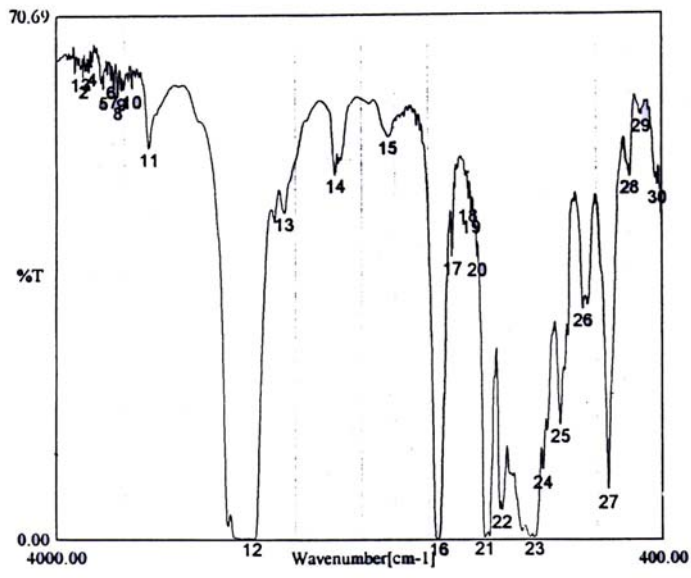
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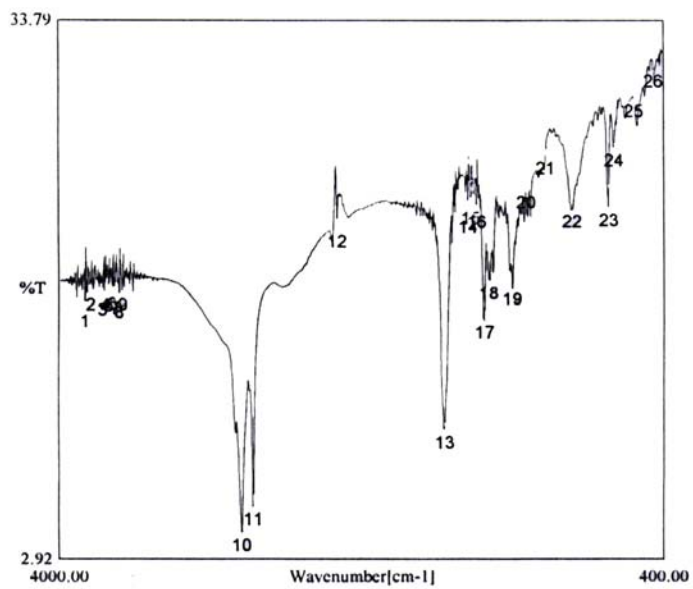
AFNOR

Shimadzo A

EF JASCO COR IR



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cm⁻¹

cm⁻¹

cm⁻¹

cm⁻¹

cm⁻¹

cm⁻¹

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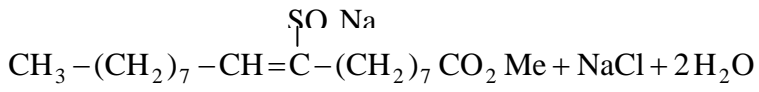
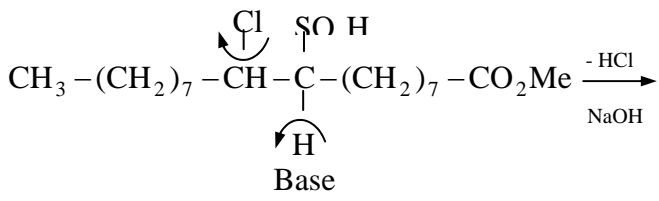
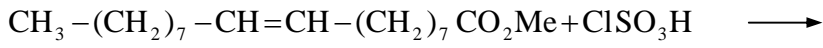
				C = cm^{-1}
	C H O	,		
	C H O	,		
	C H O	,		
	C H O	,		
	C H O	,		

()

				C = cm^{-1}	SO = cm^{-1}
	C H O SNa	,			
	C H O SNa	,			
	C H O SNa	,			
	C H O SNa	,			
	C H O SNa	,			

- SO

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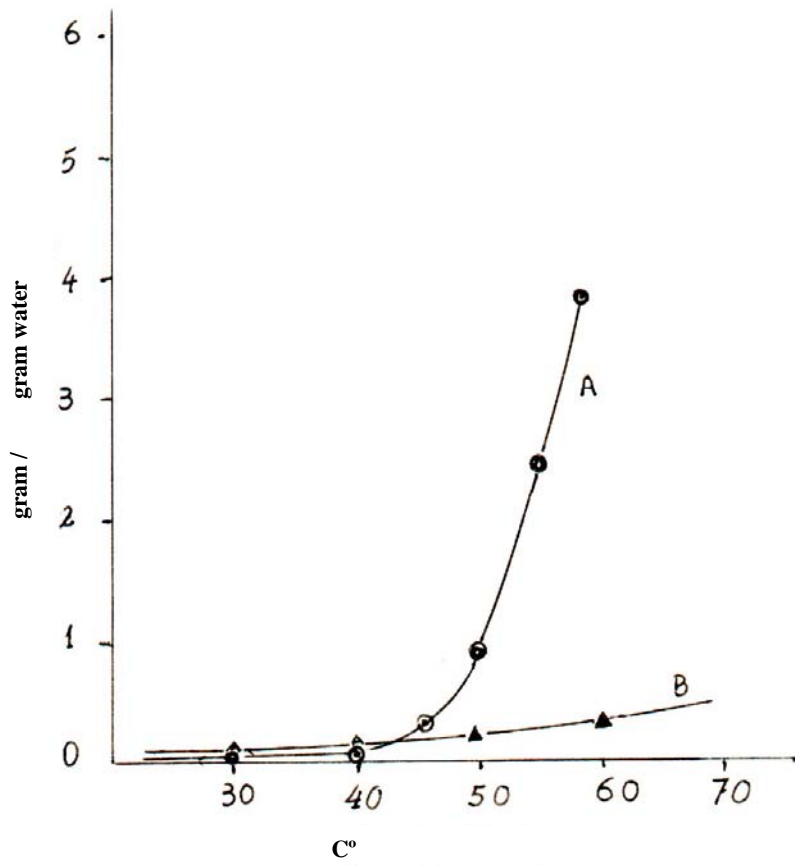
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	g/	m
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- B

- A

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.CMC

.() CMC
/ CMC ()

	T = C°	T = C°
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	/	/
	/	/
	/	/
	/	/

.()

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	V	V	V	V
	()	()	()	()

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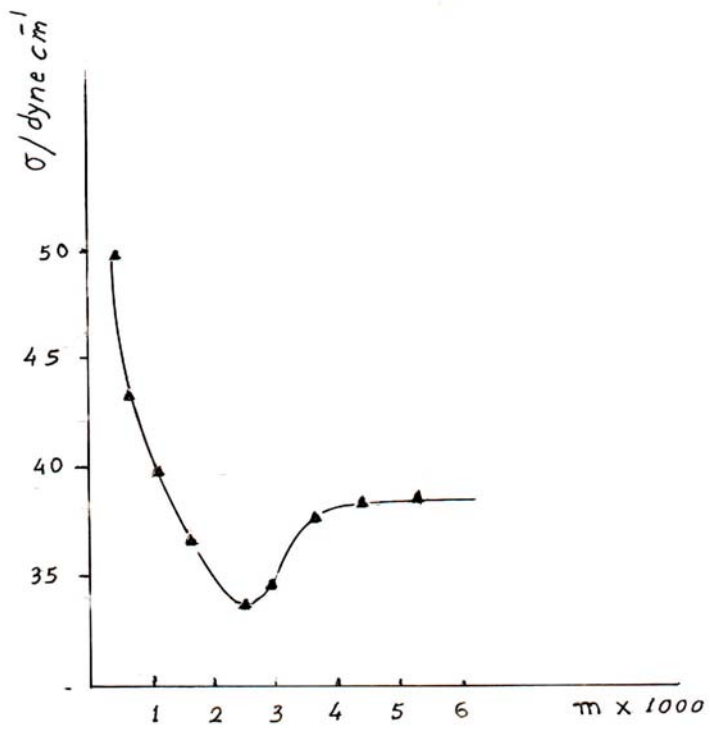
C γ

C PC ()

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	γ^* mN/m	m mol/L PC
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