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Abstract: N-acyl amino acids can be used as active surface agents in the detergents industry, as well as in the pharmaceutical industry and cosmetics. Properties of these compounds are superior to those of fatty acids soaps and they are not toxic to the environment and have low Kraft points, because of peptide bonds (CO-NH). Acylation at the nitrogen atom can be performed with good yields without catalysts, for strong nucleophilic derivatives. The synthesis of some derivatives of 4-azasebacic acid, which are hydrolysis degradation products from N-(β -cianoethyl)- ϵ -caprolactam, has been described and the N-acylation processes for these compounds are also presented. The obtained products have been characterized using various methods: IR, UV-VIS, $^1\text{H-NMR}$, $^{13}\text{C-NMR}$, elemental analysis, TLC, m.p. (Boethius), and in some cases refractive index. The most important surfactant properties of these N-acylated products were investigated using the surface tension method. The related thermodynamic parameters were also calculated.

Key Words: N-acylation, surfactants, 4-azasebacic acid, N-(β -cianoethyl)- ϵ -caprolactam, critical micelle concentration, surface tension, foaming

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