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(54) Title: PROCESS FOR HYDROLYTICALLY DEPOLYMERIZING A POLYAMIDE

(57) Abstract: A process for hydrolytically depolymerizing polyamide 6 prepared from ϵ -caprolactam, the process comprising (i) providing a chemical feedstock F comprising the polyamide 6 and further comprising at least one further organic polymeric compound; (ii) providing a liquid aqueous stream S_w ; (iii) admixing the feedstock F with the stream S_w and subjecting the obtained mixture to polyamide 6 depolymerization conditions in a reaction unit U_R , obtaining an aqueous stream S_F comprising ϵ -caprolactam and one or more decomposition products of one or more of the at least one further organic polymeric compound; (iv) generating an aqueous stream S_R comprising at least part of the water and at least part of at least one of the one or more decomposition products comprised in the stream S, said stream S_R ; (v) feeding at least part of the aqueous stream S_R back to the chemical reaction unit U_R .



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