

ABSTRACT**Method for recovering residual monomers in the preparation of vinyl ester-ethylene copolymers**

5 The invention relates to methods for preparing vinyl ester-ethylene copolymers by means of radically initiated polymerisation of vinyl esters, ethylene, and optionally further ethylenically unsaturated monomers in aqueous medium at a pressure of 5 to 120 bar abs., characterised in that a) a polymerisation mixture is expanded to a pressure of 1 to 15 bar abs., producing a gas phase which
10 contains ethylene and an aqueous phase which contains a vinyl ester and vinyl ester-ethylene copolymers, b) the ethylene-containing gas phase from step a) is separated, then received in vinyl ester, and the mixture thus obtained is used in the radically initiated polymerisation of vinyl esters, ethylene, and optionally further ethylenically unsaturated monomers, and c) the aqueous phase from
15 step a) is expanded to a pressure of 0.1 to 0.5 bar abs., a gas phase which contains a vinyl ester and water being formed, which is separated, then condensed, and then used in the radically initiated polymerisation of vinyl esters, ethylene, and optionally further ethylenically unsaturated monomers.

20 [No Suitable Figure]