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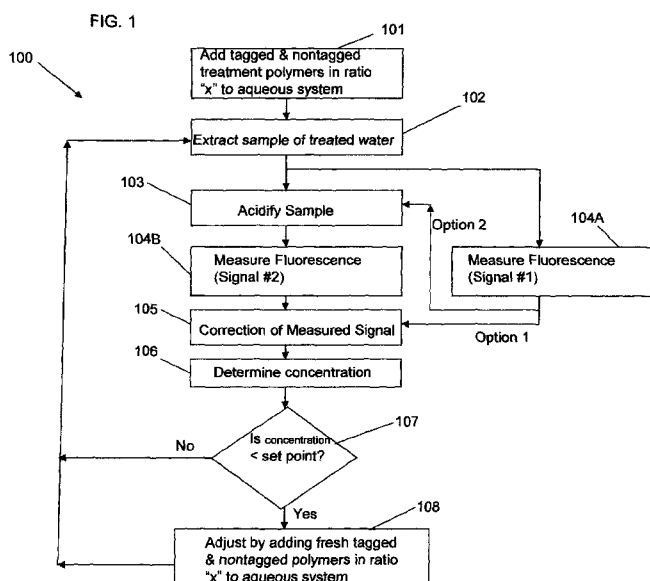
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(54) Title: TAGGED POLYMERS, WATER TREATMENT COMPOSITIONS, AND METHODS OF THEIR USE IN AQUEOUS SYSTEMS



(57) Abstract: A method and composition is described for controlling the growth of fouling materials, such as scale, in aqueous systems using a tagged (fluorescent) polymer. The tagged polymer can be a fluorescent polymer which has at least one fluorescent monomeric unit derived from a fluorophore which has at least one terminal end comprising an olefinic group. The method of controlling the growth of at least one fouling material in an aqueous system can include the steps of adding the tagged polymer to the aqueous system to be treated, fluorometrically monitoring the concentration of the tagged polymer, and adjusting, as needed, the concentration of the tagged polymer and proportionally used water treatment compound or compounds effective to control the growth of at least one fouling material in the aqueous system. The adjustment of pH before determination of the fluorescence signal can be employed to increase sensitivity of the fluorophore and minimize background interference.



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