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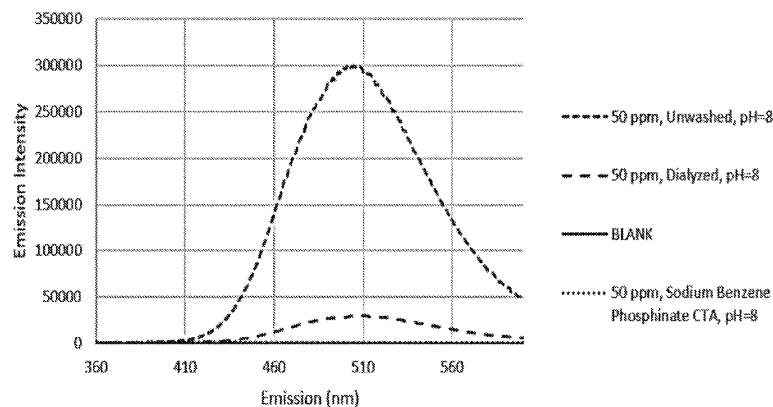
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(54) Title: FLUORESCENT-TAGGED WATER TREATMENT POLYMERS

FIG. 1

Dimethylaminonaphthyl Phosphinic Acid CTA Polymer
320 nm Excitation



(57) Abstract: Embodiments relate a method of treating a water system that includes providing to the water system a fluorescent-tagged treatment polymer that is the reaction product of a mixture that includes at least one unsaturated monomer, at least one initiator with at least one reactive terminal group for reacting with the unsaturated monomer, and at least one fluorescent chain transfer agent, the at least one fluorescent chain transfer agent having a phosphorus-hydrogen or sulfur-hydrogen group connected to a polyaromatic hydrocarbon group having from two to ten rings, and the at least one fluorescent chain transfer agent being a chain transfer agent that controls final polymer molecular weight of the fluorescent-tagged treatment polymer and a fluorescent tag for the fluorescent-tagged treatment polymer.

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