

ABSTRACT

A sulfonated polyethylene is achieved where a polymethylene backbone with substituted methylene units having one or two sulfonic acid groups or salts of the sulfonic acid groups periodically, quasiperiodically, or quasirandomly separated from each other by unsubstituted methylene units along the polymer backbone. The sulfonated polyethylene is prepared by
5 suspending a sulfonated ester polyethylene in a polar aprotic non-solvent, whereupon the addition of a strong base saponifies the esters with the dissolving of the resulting sulfonated polyethylene having salts of sulfonic acid groups.