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(54) Title: ELASTOMERIC NANOCOMPOSITE MANUFACTURING

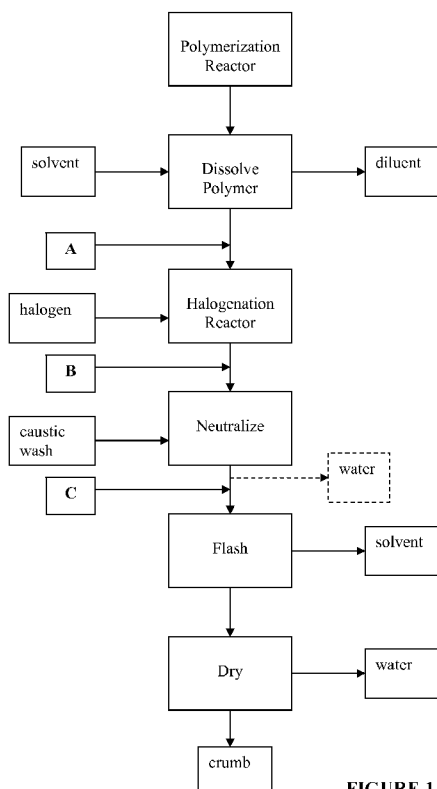


FIGURE 1

(57) **Abstract:** An elastomeric nanocomposite is produced from an isobutylene-based polymer and a layered nanofiller. The process of preparing the nanocomposite includes the steps of a) polymerizing isobutylene monomers and multiolefin monomers to produce an isobutylene-based polymer; b) completing at least one mass transfer dependent stage in the process wherein, after completion of the stage and prior to any recovery of the polymer, the polymer is dissolved in a solvent to create a polymer cement; c) contacting the layered nanofiller and the polymer solvent to obtain the nanocomposite; and d) recovering the nanocomposite. The layered nanofiller may be in a slurry prior to contacting with the polymer cement.



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