

Title: PROCESS FOR POLYMERIZING ACRYLONITRILE

Abstract of the Disclosure

This invention relates to a process for polymerizing acrylonitrile, comprising: (A) forming a polymerizable mixture comprising acrylonitrile monomer, solvent and a metal catalyst; (B) contacting said mixture with an initiator, said initiator being selected from the group consisting of sulfonyl halides, halopropionitriles, substituted halopropionitriles in the form of monoadducts derived from sulfonyl halides and acrylonitrile, monoadducts derived from substituted sulfonyl halides and monomers other than acrylonitrile; or polymers containing end groups derived from sulfonyl halides, halopropionitriles, substituted halopropionitriles in the form of monoadducts derived from sulfonyl halides and acrylonitrile, or monoadducts derived from substituted sulfonyl halides and monomers other than acrylonitrile; and (C) polymerizing said acrylonitrile monomer to form a polymer comprised of acrylonitrile. In one embodiment, the polymerizable mixture in step (A) further comprises at least one polymerizable comonomer other than acrylonitrile, and the polymer formed during step (C) is a copolymer or a multicomponent copolymer comprised of acrylonitrile and said at least one other polymerizable comonomer.