Application reference: PM-01

Application number: 10201908646Q

Abstract

In a first aspect, the present disclosure relates to a method for preparing the poly (arylene ether ketone)s polymer materials as described herein, compromising the steps of mixing of organic monomers and bases with or without of phase transfer catalysts in a solvent system at elevated temperature for a time duration.

The method may further comprise the steps of collection of products by filtration at elevated temperature and washing.

The solvent can be diphenyl sulfone (DPS), dibenzyl toluene or their mixture.

The temperature for reaction may be from 150 ^{o}C to 340 ^{o}C. The temperature for filtration/collection may be from 50 ^{o}C to 170 ^{o}C. The time duration may be from 5 to 25 hours.

The phase transfer catalyst may be phosphoniums, ammoniums or crown ethers. The catalyst molar ratio may be from 0 to 10%.