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Polymerization of Acrylic Acid by a 4kJ plasma focus deviceMorteza habibi¹, Reza Amrollahi¹, MHS alavi²¹Amirkabir University of Technology, Tehran, Iran ²amirkabir university of technology, tehran, Iran

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The most conventional way for polymerization of acrylic acid on different substrates is using RF devices and introducing of other devices is under way. In this work we have a new study on formation of polymer Acrylic Acid using a 4kJ Mather type plasma focus device. The formation of plasma polymer acrylic acid is discussed using results obtained from attenuated total reflectance infrared spectroscopy (ATR). The results show that after 15 shots, nitrogen pulses performed polymerization on the specimens and the main peaks of ATR spectra assured poly acrylic acid formation on SBR substrate.

Keywords

Plasma polymerization

plasma focus device

Acrylic acid

ATR-FTIR