

## MODIFICATION OF POLYMERS BY INORGANIC FLUOROCONTAINING OXIDANTS

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The interaction between inorganic fluorocontaining oxidants, in particular,  $\text{XeF}_2$ ,  $\text{KrF}_2$ ,  $\text{ClF}_5$  in gas phase and polyethylene (plates and foils) in the presence and absence of Lewis fluoroacids, were examined.

As a result of polyethylene treatment with fluorinating agents, the surface film, which depending upon the conditions of the process, can contain up to 40% of fluorine, is formed.

It was shown that the polyethylene modification is essentially influenced by conditions of the process - the duration of the treatment, fluorinating agent concentration, the temperature of the process, the type and the presence (or absence) of catalyst.

The optimum conditions of polyethylene treatment were found out.

The polyethylene modified by such method has better chemical resistance, the lower adhesion for some materials.

The products of fluorination were identified by the following methods - gravimetry, vibrational spectroscopy (IR and Raman) and ESCA.

Some other results of polymers modification, in particular, rubbers in gas phase and polymethylmetacrylate and its copolymers in organic solution will be presented.