

## ADVANTAGES OF PROVIDING OF BIOLOGICAL ACTIVITY OF POLYMER COMPOSITION ON THE BASIS CROSSES

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**C**urrently, existence of the demand in biologically active materials-polymer compositions having high indices in various fields of human's vital activity increases urgency of researches in corresponding field. Modification is carried out to provide biological activity of polymer composition by adding corresponding compounds to polymers. The following processes can take place in the compositions formed by biological active additives and polymers: chemical cross; physical and chemical relation; mechanical mixing. It should be noted that in the initial sources there are some demands for biologically active additives: they don't interact chemically with polymer parent, don't extract to the environment, create homogeneous phase and etc. But there are researches concerning the increase of ecological tension as a result of extraction of toxic additives from the polymer compositions content to the environment in the exploitation process. Researches are carried out in the direction of analyses of composition properties obtained on the basis of modification of exploited LDPE with biologically active compositions including anti-microbe properties. Functional groups formed in the LDPE in the research process create opportunity to carry out chemical modification. As a result of analyses it has been determined that chemical modification of polymer parent with biologically active additives has a number of advantages. They are followings: biologically active additive crossed by polymer doesn't extract to environment in the exploitation process; provides stability of biological activity in the exploitation process; creates opportunity for purposeful control of polymer composition properties; provides service period of the item; creates condition for reliable use of polymer composition from human's activity safety point; prevents formation of ecological problem when extracting biological active additive to the environment; helps to use raw material resources economically. The research is of scientific-practical importance.

### Biography

Rahima S Mammadova has received her PhD in Chemistry from Azerbaijan State Oil Academy in 2001. She is an Associate Professor and Head of the New Biological Active Compounds Scientific-Research Laboratory in Azerbaijan State Pedagogical University. Results of her investigations are: dynamics of polyethylene samples aging in Azerbaijan's natural climatic conditions; contents of new polymer compositions; new investigation method of the functional groups of aging polymers; method for investigation of the polymer compositions content; generalization of the obtaining methods of polymer compositions. She is the author of more than 80 scientific works, including three patents, eight author's copyright certificates. Currently, she works on the thesis of Doctor of Sciences on Chemistry and continues research on the content and properties of biologically active polymer compositions.

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