

Antimicrobial activity of Polypropylene(PP) composite with silver exchanged zeolite

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The antimicrobial properties of Polypropylene(PP) composite with silver ion exchanged zeolite as additive were prepared a. Zeolites were composed of aluminum, silicon, and oxygen in a framework with cations. Their cation contents can be exchanged with monovalent or divalent ions. In this study, the antimicrobial, Staphylococcus aureus and Escherichia coli, properties of silver exchanged sodium ion of zeolite type A with PP composites were investigated individually contents. It was observed that silver cation ion-loaded zeolites exhibited more antibacterial activity with respect to other neat PP composite sample. In addition, FE-SEM(EDS mode) and XPS(X-ray Photoelectron Spectroscopy) of silver exchanged zeolite/PP composites were investigated.