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# Modification of zeolite supporting diamine silver complex for antibacterial activity

The antibacterial zeolite powder prepared by replacing ion-exchangeable in zeolite with silver diamine complex. These composites showed improved discoloration with time and UV stability compared with conventional antibacterial zeolite (silver ions or silver nanoparticles incorporated into zeolite). They were characterized by Transmission electron microscopy (TEM), X-ray diffraction (XRD) and Atomic absorption spectroscopy (AAS). Zeolite supporting diamine silver complex showed strong antibacterial efficacy against the Gram-positive Staphylococcus aureus (S. aureus, ATCC 6538) and Gram-negative Pseudomonas aeruginosa (P. aeruginosa, ATCC 27853). Moreover, zeolite-Ag(NH3)2+ exhibited excellent color stability under UV irradiation. Therefore, they could be a beneficial tool for the development of coating application.
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