Nano-sized Magnesium Oxide for Adsorption of Toxic Chemical and Biological Agonists

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It is well known that activated carbon has a high performance for toxic chemical removal. However, in the military application, higher removal performance is needed in viewpojnt of removal efficiency, applied amount, selectivity, etc. Recently, various nanoparticles have been adapted to eliminate of toxic chemicals and biological agonists. In this study, nano-sized MgO particles were synthesized by various synthesized methods. The particles as-prepared were characterized by XRD, BET, and TEM. The adsorptive properties and removal efficiencies of toxic compounds were performed by the breakthrough experiments. And their removal efficiency of the chlorine and sulfur compounds in the air were compared with each other.