

## Treatment of Chemical Warfare Agents with Graphene/Zirconium (Hydr)oxide Composite

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Graphene oxide recently has been studied extensively as one of potential candidate materials for the treatment of Chemical Warfare Agents(CWAs). Specially, graphene oxide attracts researchers by the point that it is able to be functionalized with many kinds of molecules possessing reactive and adsorptive sites for CWAs. Moreover, it can be applied to high-sensitive detective sensor for CWA molecules due to its outstanding electrical conductivity and electron mobility. In this paper, we have attempted to functionalize graphene oxide with Zirconium (Hydr)oxide as a composite formation. After then, its surface properties were characterized through various analysis apparatus such as SEM(Scanning Electron Microscope), TGA(Thermogravimetric analysis) and BET analysis. In addition, its ability to decontaminate CWAs like GD and HD was measured by dry-method reported in recent research.