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# Removal of Perchloroethylene, a Common Pollutant, in Groundwater Using Activated Carbon

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**Abstract :** The contamination of groundwater is a major concern. A common pollutant, the perchloroethylene, is the target contaminant. Water treatment process as Granular Activated Carbons are very efficient but requires pilot-scale testing to determine the full-scale GAC performance. First, the batch mode was used to get a reliable experimental method to estimate the adsorption capacity of a common volatile compound is settled. The Langmuir model is acceptable to fit the isotherms. Dynamic tests were performed with three columns and different operating conditions. A database of concentration profiles and breakthroughs were obtained. The resolution of the set of differential equations is acceptable to fit the dynamics tests and could be used for a full-scale adsorber.

**Keywords :** activated carbon, groundwater, perchloroethylene, full-scale
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