

## **Recovery of Organic Tri-Chloro Ethylene (TCE) Vapor in Packed, Fluidized and Circulating Fluidized Bed of Activated Carbon Particles.**

TCE vapor is generated during the synthesis of mixed oxide fuel and lithium pebbles by sol-gel process, which has low TLV in air. Experiments were conducted for the adsorption and recovery of TCE vapor on activated carbon particles in packed, fluidized and circulating fluidized bed. It was found that, >90% of TCE vapor in air can be adsorbed and recovered in circulating fluidized bed. A mathematical model on the concentration and temperature behaviour of packed and fluidized bed on adsorption of the TCE vapour was developed and the model has been validated with the experimental results.



*Experimental setup for adsorption of TCE on activated carbon using packed bed and its thermal regeneration.*