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Toluene and acetaldehyde removal from air on to graphene-based adsorbents with microsized pores

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Highlights

- The first report that graphene-based adsorbent was evaluated for VOC gas adsorption
- Sufficient amount of graphene-based adsorbent was evaluated (in gram) for toluene and acetaldehyde gas (30ppmv)
- Their comparable effectiveness was demonstrated with a commercial activated carbon
- The preparation method (microwave irradiation and KOH activation) are appropriate for mass production

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