Air Treatment Performance and Toxicity Studies of Supported Ionic Liquids

By

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Examination Committee:
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Abstract

People’s awareness of air quality has continuously grow since air pollutant problem become severe. Among the commercial air purifier in the market, most types are based on HEPA filter. My topic will focus on optimizing the existed indoor air purifier, with a special design of supported ionic liquid. Since ionic liquid is a good adsorbent, the filtration efficiency of particulate matter increases after optimization. The toxicity of these supported ionic liquid has been studied as well to make sure new purifiers not hazardous to user. After primary study in the lab, a field test has been run to observe effect under actual circumstance.