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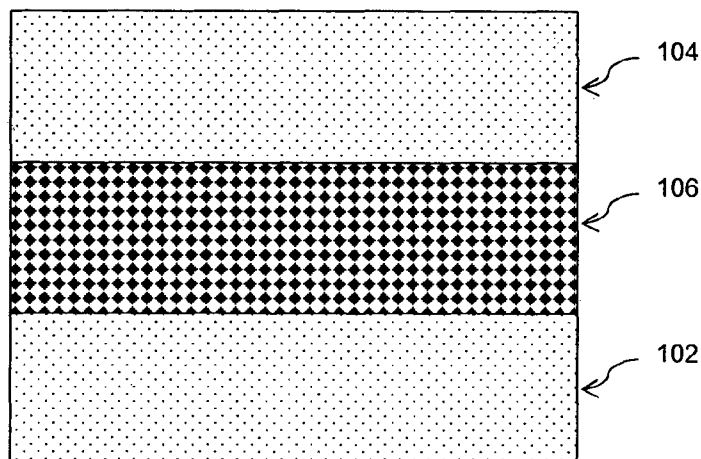
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[Continued on next page]

(54) Title: FILTRATION MEDIUM WITH ELECTROSPUN METAL OXIDE NANOFIBER LAYER

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(57) Abstract: A multi-layered filtration medium for detoxification of chemical contaminants and disinfection of biological contaminants. The filtration medium includes two disinfection nanofiber layers and one detoxification nanofiber layer disposed between the two disinfection nanofiber layers. The filtration medium is loaded with high content of a detoxifying material which capable of achieving about 95% detoxification efficiency with no leaching of the detoxifying material. The filtration medium may also include a medicinal substance for medical applications and a sensor for indicating the lifetime of the filtration medium.

Fig. 1



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