

Title (en)
SYSTEM AND METHOD FOR MEASURING RETENTATE IN FILTERS

Title (de)
SYSTEM UND VERFAHREN ZUM MESSEN VON RETENTAT IN FILTERN

Title (fr)
SYSTEME ET PROCEDE DE MESURE DU RETENTAT DANS DES FILTRES

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Application
EP 09835426 A 20091030

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Abstract (en)
[origin: WO2010074812A1] A system and method for determining loading of a filter having a first dielectric constant with a material having a different dielectric constant, is disclosed. The filter is contained within a metallic container forming a microwave cavity, and microwave or RF energy is created within the cavity and changes in the cavity microwave response are monitored. The changes in cavity microwave response are related to filter loading. In a preferred embodiment, the microwave energy includes multiple cavity modes thereby allowing determination of spatial distribution of the contaminant material loading. In one embodiment, the microwave cavity response includes a shift in frequency of a resonant mode. Alternatively, the microwave cavity response includes a shift in quality factor Q of a resonant mode. The microwave cavity response may include a shift in amplitude or peak width of the microwave's signal at resonance.

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