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(54) Title: DUAL-FILTER ELECTRICALLY ENHANCED AIR-FILTRATION APPARATUS AND METHOD

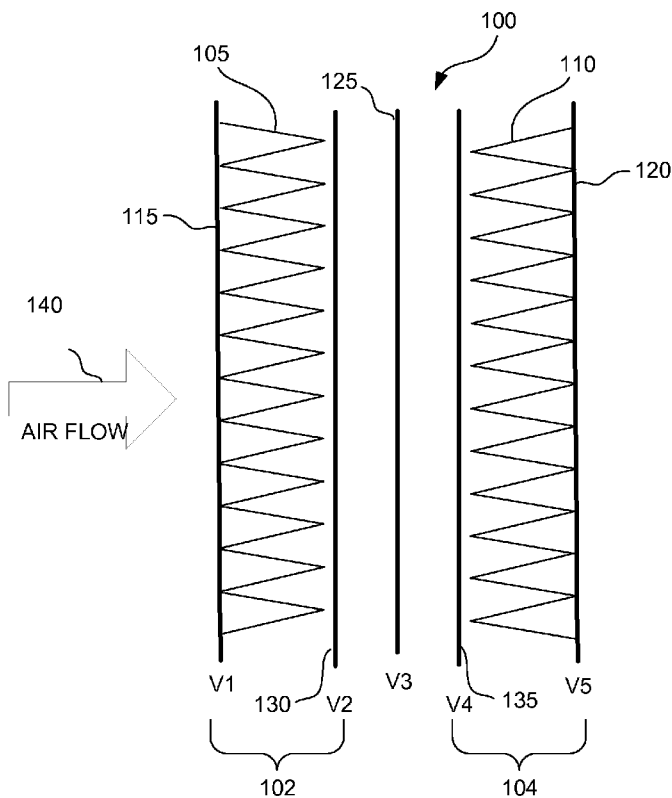


FIG. 1

(57) Abstract: A dual-filter electrically enhanced air-filtration apparatus and method are described. One embodiment includes an upstream electrically enhanced filter; a downstream electrically enhanced filter; a first control electrode adjacent to an upstream side of the upstream electrically enhanced filter; a second control electrode adjacent to a downstream side of the downstream electrically enhanced filter; and an ionizing electrode disposed between the upstream and downstream electrically enhanced filters, the ionizing electrode having an electrical potential with respect to the first and second control electrodes. Optional field electrodes may be included to enhance the electric fields associated with the upstream and downstream electrically enhanced filters.

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<p>A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - B03C 3/00; B03C 3/41 (2008.04) USPC - 96/63; 96/62 According to International Patent Classification (IPC) or to both national classification and IPC</p>																	
<p>B. FIELDS SEARCHED</p> <p>Minimum documentation searched (classification system followed by classification symbols) USPC - 96/63; 96/62</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) GOOGLE, GOOGLEPatents, DELPHION/ US (Granted), German (Granted), German (Applications), European (Applications), European (Granted), INPADOC, Abstracts of Japan, WIPO PCT Publications, US (Applications): strionair, field electrode, ionizing electrode, electrically enhanced, filter, air, insulat*, shield*, sheath*, upstream</p>																	
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>US 5,403,383 A (JAISINGHANI) 4 April 1995 (04.04.1995) Entire document, particularly Fig 1, Fig 3B-3F; col 1, ln 25-28; col 4, ln 38-66; col 5, ln 26-29; col 6; col 7, ln 1-18; col 15, ln 25-61; col 16, ln 18; col 19, ln 11-23.</td> <td>1-26</td> </tr> <tr> <td>A</td> <td>US 2006/0180023 A1 (COPPOM et al.) 17 August 2006 (17.08.2006) Entire document. Para [0034]-[0038].</td> <td>1-26</td> </tr> <tr> <td>A</td> <td>US 2006/0168926 A1 (DAWSON et al.) 3 August 2006 (08.08.2006).</td> <td>1-26</td> </tr> <tr> <td>A</td> <td>US 7,025,806 B2 (COPPOM et al.) 11 April 2006 (11.04.2006).</td> <td>1-26</td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X	US 5,403,383 A (JAISINGHANI) 4 April 1995 (04.04.1995) Entire document, particularly Fig 1, Fig 3B-3F; col 1, ln 25-28; col 4, ln 38-66; col 5, ln 26-29; col 6; col 7, ln 1-18; col 15, ln 25-61; col 16, ln 18; col 19, ln 11-23.	1-26	A	US 2006/0180023 A1 (COPPOM et al.) 17 August 2006 (17.08.2006) Entire document. Para [0034]-[0038].	1-26	A	US 2006/0168926 A1 (DAWSON et al.) 3 August 2006 (08.08.2006).	1-26	A	US 7,025,806 B2 (COPPOM et al.) 11 April 2006 (11.04.2006).	1-26
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<p>Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201</p>		<p>Authorized officer: Lee W. Young</p> <p>PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774</p>															