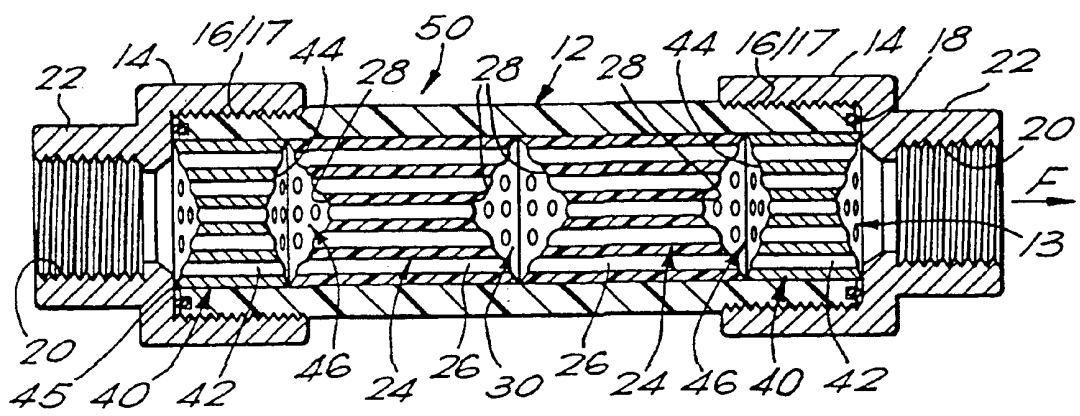




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁵ : C02F 5/00</p>	<p>A1</p>	<p>(11) International Publication Number: WO 94/17000 (43) International Publication Date: 4 August 1994 (04.08.94)</p>
<p>(21) International Application Number: PCT/GB94/00129 (22) International Filing Date: 24 January 1994 (24.01.94)</p> <p>(30) Priority Data: 9301384.5 25 January 1993 (25.01.93) GB 9323546.3 15 November 1993 (15.11.93) GB 9326455.4 24 December 1993 (24.12.93) GB</p> <p>(71) Applicant (for all designated States except US): ION ENTERPRISES LTD. [GB/GB]; Unity Chambers, 34 High East Street, Dorchester, Dorset DT1 1HA (GB).</p> <p>(72) Inventors; and (75) Inventors/Applicants (for US only): BUCHANAN, John, Christopher, Sutherland [GB/GB]; Pipshaven, Forest Lane, Hightown, Ringwood, Hampshire BH24 3HF (GB). JOSLIN, Christopher, Michael, David [GB/GB]; 38 Barrow Close, Dorchester, Dorset DT1 2HG (GB).</p> <p>(74) Agents: HARRIS, Ian, Richard et al.; D. Young & Co., 21 New Fetter Lane, London EC4A 1DA (GB).</p>		<p>(81) Designated States: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p>Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p>

(54) Title: FLUID TREATMENT DEVICE AND METHOD



(57) Abstract

A fluid treatment device, especially for reducing or removing the effects of hard water, has a fluid inlet, a fluid outlet, and a cavity extending between the inlet and the outlet. A dielectric channel separator (preferably of plastics material, more preferably PTFE) is located in the cavity between the inlet and the outlet and extends at least part way along the cavity. The dielectric channel separator divides the cavity into a plurality of elongate channels which are mutually coextensive for at least part of their length in the direction of fluid flow from the inlet to the outlet and are at least partially bounded by dielectric material. A metallic channel separator, preferably of zinc, can also be provided to provide a degree of protection against corrosion. The channel separators are preferably configured to encourage turbulence in the fluid flowing through the device.