

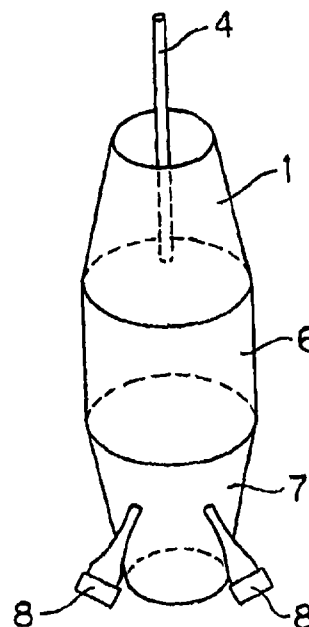


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(21) International Application Number: PCT/JP00/01305 (22) International Filing Date: 3 March 2000 (03.03.00) (30) Priority Data: 11/68862 15 March 1999 (15.03.99) JP (71) Applicant (for all designated States except US): TSUKUBA BIOSYSTEM, LTD. [JP/JP]; 802-36, Edosaki Otsu, Edosaki-machi Inashiki-gun, Ibaraki 305-0509 (JP). (72) Inventor; and (75) Inventor/Applicant (for US only): MAEKAWA, Takaaki [JP/JP]; 802-36, Edosaki Otsu, Edosaki-machi, Inashiki-gun, Ibaraki 305-0509 (JP). (74) Agents: AGATA, Akira et al.; Agata Patent Office, 3rd Floor, Ikeden Building, 12-5, Shimbashi 2-chome, Minato-ku, Tokyo 105-0004 (JP).		(81) Designated States: AU, BR, CA, CN, JP, KR, NZ, SG, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>  *G00001*

(54) Title: METHOD AND APPARATUS FOR TREATMENT OF ORGANIC MATTER-CONTAINING WASTEWATER**(57) Abstract**

Disclosed is a novel method for treatment of wastewater containing organic contaminant materials by oxidatively decomposing the contaminant materials by a radical reaction involving hydroxyl radicals. The method comprises passing the wastewater through a wastewater treatment conduit (6) comprising a straightly tubular member (6) and a radical generating part consisting of a truncated pyramidal or conical tubular member (1) having an inner surface layer of titanium dioxide to serve as a positive electrode and connected to the upstream end of the straightly tubular member and a negative electrode rod (4) coaxially held relative to the truncated tubular member and applying a pulsed DC voltage having a rectangular wave form at a specified frequency. The efficiency of wastewater treatment can be improved by providing an ultrasonic part consisting of a truncated tubular member similar (7) to the above and connected to the downstream end of the straightly tubular member and an ultrasonic vibrator (8) mounted thereon to emit pulsed ultrasonic waves.



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