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(21) International Application Number: PCT/US98/19480 (22) International Filing Date: 18 September 1998 (18.09.98) (30) Priority Data: 08/933,885 19 September 1997 (19.09.97) US (71) Applicants (for all designated States except US): ENERGY BIOSYSTEMS CORPORATION [US/US]; 4200 Research Forest Drive, The Woodlands, TX 77381 (US). TOTAL RAFFINAGE DISTRIBUTION S.A. [FR/FR]; 24, cours Michelet, La Défense, F-92907 Paris (FR). (72) Inventors; and (75) Inventors/Applicants (for US only): JOHNSON, Steven, W. [US/US]; Apartment 239, 1500 A Lafayette Road, Portsmouth, NH 03801 (US). MONTICELLO, Daniel, J. [US/US]; 152 N. Mill Trace, The Woodlands, TX 77381 (US). HAZAN, Charles [FR/FR]; 23, rue de Seine, F-75006 Paris (FR). COLIN, Jean-Michel [FR/FR]; 21, rue Germaine Coty, F-76600 Le Havre (FR). (74) Agents: ELMORE, Carolyn, S. et al.; Hamilton, Brook, Smith & Reynolds, P.C., Two Militia Drive, Lexington, MA 02421 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>Without international search report and to be republished upon receipt of that report.</i>
(54) Title: CONVERSION OF ORGANOSULFUR COMPOUNDS TO OXYORGANOSULFUR COMPOUNDS (57) Abstract The present invention relates to a method for the desulfurization of a fossil fuel containing one or more organosulfur compounds. In one embodiment, the method comprises the steps of (1) contacting the fossil fuel with a biocatalyst capable of converting the organosulfur compound to an oxyorganosulfur compound which is separable from the fossil fuel; and (2) separating the oxyorganosulfur compound from the fossil fuel. The oxyorganosulfur compound can then be isolated, discarded or further processed, for example, via desulfurization by a biocatalyzed process or an abiotic process, such as hydrodesulfurization.		