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(71) Applicant *(for all designated States except US)*: **GEO2 TECHNOLOGIES, INC.** [US/US]; 27 Saddle Hill Road, Weston, MA 02493 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **ALWARD, Gordon, S.** [US/US]; P.O. Box 2250, Del Mar, CA 92014-1550 (US). **DICHIARA, Robert, A., Jr.** [US/US]; 2931 Rancho Vacada, Carlsbad, CA 92009 (US).

(74) Agents: **LEE, Michael, Q.** et al.; Sterne, Kessler, Goldstein & Fox p.l.l.c., 1100 New York Avenue, N.W., Washington, DC 20005 (US).

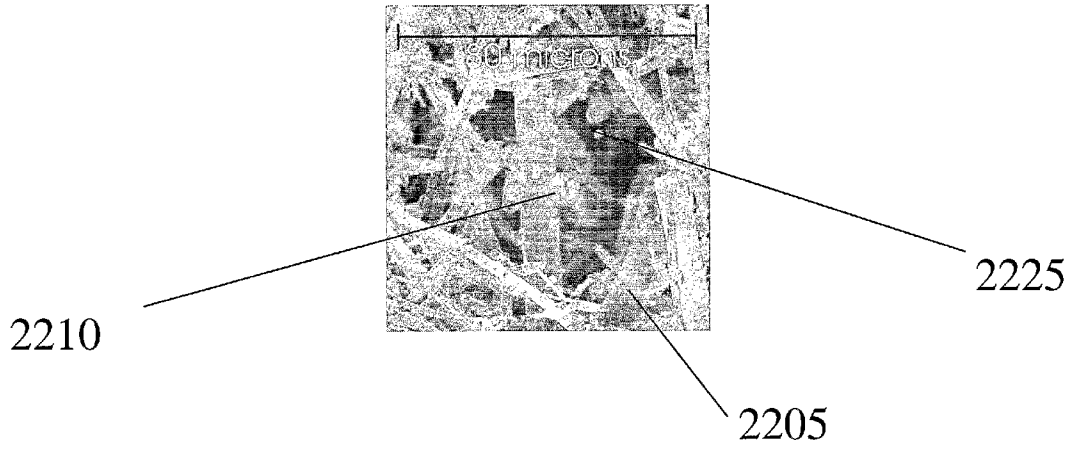
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(54) Title: NONWOVEN COMPOSITES AND RELATED PRODUCTS AND METHODS



(57) **Abstract:** The present invention in certain embodiments is directed to a catalytic substrate suitable for use in a number of applications, including as a substrate in a catalytic converter. Another aspect of the present invention is a filtering substrate suitable for use in a number of applications, including as a substrate in a particulate filter, such as a diesel particulate filter (DPF), or diesel particulate trap (DPT). The invention also provides an improved substrate for removing and/or eliminating pollutants from the exhaust of combustion engines. The catalytic substrate and filtering substrate provide, in certain embodiments, improvements in removing pollutants from an exhaust gas. The improvements include one or more of the following: faster light-off period, depth filtration of PM, less backpressure, lower probability of clogging, ability to be placed in multiple locations in the exhaust system including the manifold or the head itself, high probability of catalytic reaction, high conversion ratios of NOx, HC, and CO, a faster burnoff of PM, minimization of catalyst material use, and the like.

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