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**Carbonell et al.**

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[54] **METHOD AND COMPOSITIONS FOR PROTECTING CIVIL INFRASTRUCTURE**

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[\*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

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[51] **Int. Cl.**<sup>7</sup> ..... **B05D 1/02; B05D 3/02**

[52] **U.S. Cl.** ..... **427/393.6; 427/421; 526/89; 526/245; 526/942**

[58] **Field of Search** ..... **427/393.6, 421; 526/89, 245, 942**

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[57] **ABSTRACT**

A method of protecting a civil infrastructure substrate from the damaging effects of pollution, noxious fumes, weather, and the like. The method comprises (a) providing a composition comprising carbon dioxide and a fluorocarbon such as a fluoropolyether (preferably a perfluoropolyether) or a fluorocarbon elastomer, optionally having at least one anchoring group such as an amide covalently joined thereto, and then (b) applying that composition to the civil infrastructure substrate to form a protective coating thereon. The applying step is preferably carried out by spraying. Compositions useful for carrying out the process of the invention are also disclosed.

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**24 Claims, 3 Drawing Sheets**

