

Title (en)

FIRE-RESISTANT GAS GENERATING BATTERY ELECTROLYTES

Title (de)

ELEKTROLYT FÜR EINE BATTERIE, DIE NICHTBRENNBARES GAS PRODUZIERT

Title (fr)

ELECTROLYTES DE BATTERIE PRODUISANT UN GAZ IGNIFUGEANT

Publication

EP 1042838 A1 20001011 (EN)

Application

EP 98960601 A 19981201

Priority

- US 9825466 W 19981201
- US 6722697 P 19971202

Abstract (en)

[origin: WO9928987A1] A compound that generates a fire-retardant gas upon decomposition has general structure (I) wherein, X is N, C, S, NO, N₂, CO, SO; A is substantially any organic moiety including alkyl, aryl, alkoxy, cyclic, fused cyclic, heteroatoms, ketals, acetals or alcohols. B<1> and B<2> are substantially any organic moiety including alkyl, aryl, alkoxy, cyclic, fused cyclic, heteroatoms, ketals, acetals or alcohols, also including oxygen, hydrogen and null; and n is an integer from 0-100. Preferred gases generated thereby include CO, SO₂, SO₃, NO, N₂O, NO₂ and N₂. It is also preferred that the generated gas assists in formation of a solid electrolyte interface (SEI) between the electrolyte and at least one of the electrodes. It is most preferred that the cell have a conductivity greater than 10⁻³ S/cm.

IPC 1-7

H01M 10/40

IPC 8 full level

H01M 4/13 (2010.01); **H01M 6/16** (2006.01); **H01M 10/05** (2010.01); **H01M 10/052** (2010.01); **H01M 10/0565** (2010.01); **H01M 10/0567** (2010.01); **H01M 10/40** (2006.01)

CPC (source: EP)

H01M 6/162 (2013.01)

Designated contracting state (EPC)

DE GB

DOCDB simple family (publication)

WO 9928987 A1 19990610; AU 1616199 A 19990616; CA 2313027 A1 19990610; EP 1042838 A1 20001011; EP 1042838 A4 20010404; JP 2001525597 A 20011211

DOCDB simple family (application)

US 9825466 W 19981201; AU 1616199 A 19981201; CA 2313027 A 19981201; EP 98960601 A 19981201; JP 2000523720 A 19981201