

Title (en)
BATTERY PACK DESIGN FOR METAL-AIR BATTERY CELLS

Title (de)
BATTERIESATZSDESIGN FÜR METALL-LUFT BATTERIEZELLEN

Title (fr)
CONSTRUCTION D'ENSEMBLE PILES POUR PILES METAL-AIR

Publication
EP 1142052 A2 20011010 (EN)

Application
EP 99961895 A 19991201

Priority

- US 9928425 W 19991201
- US 11229298 P 19981215
- US 11956399 P 19990210
- US 11956899 P 19990210
- US 29392799 A 19990415
- US 13506199 P 19990520

Abstract (en)
[origin: WO0036690A2] A high capacity primary (single-use; non-rechargeable) battery pack for high current portable appliances such as cellular phones employs electrochemical cells that use ambient oxygen for one of the electrodes. The pack makes possible a simple low cost design by providing for oxygen supply in a completely passive yet compact configuration. To provide for compactness while providing the high gas exchange rates required of high current devices in a passive air management design, a variety of design tactics are developed and applied in various embodiments. Many types of disposable cells are not rechargeable and can cause dangerous problems in appliances that contain hands-free adapters or chargers, such as cell phones. A protective device is disclosed which either limits charging to the degree that charging can be accepted or prevents charging entirely. Various mechanisms for achieving this result are disclosed.

IPC 1-7
H01M 12/06; **H01M 2/10**; **H04M 1/02**; **H01M 6/50**

IPC 8 full level
H01M 10/46 (2006.01); **H01M 6/50** (2006.01); **H01M 12/06** (2006.01); **H01M 50/209** (2021.01); **H01M 50/242** (2021.01); **H01M 50/247** (2021.01); **H01M 50/253** (2021.01); **H01M 50/271** (2021.01); **H01M 50/291** (2021.01); **H01M 50/293** (2021.01); **H01M 50/296** (2021.01); **H01M 50/569** (2021.01); **H04M 1/02** (2006.01)

CPC (source: EP US)
H01M 6/50 (2013.01 - US); **H01M 12/06** (2013.01 - EP); **H01M 50/204** (2021.01 - EP); **H01M 50/209** (2021.01 - US); **H01M 50/242** (2021.01 - US); **H01M 50/247** (2021.01 - EP US); **H01M 50/253** (2021.01 - EP US); **H01M 50/271** (2021.01 - EP US); **H01M 50/291** (2021.01 - EP US); **H01M 50/293** (2021.01 - EP US); **H01M 50/296** (2021.01 - EP US); **H01M 50/569** (2021.01 - EP US); **H01M 50/668** (2021.01 - EP); **H01M 50/24** (2021.01 - EP); **H01M 2220/30** (2013.01 - EP); **Y02E 60/10** (2013.01 - EP)

Citation (search report)
See references of WO 0036690A2

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
WO 0036690 A2 20000622; **WO 0036690 A3 20001123**; AU 1838400 A 20000703; AU 1838600 A 20000703; AU 2035900 A 20000703; EP 1142052 A2 20011010; EP 1142053 A1 20011010; EP 1142054 A1 20011010; JP 2002532857 A 20021002; WO 0036691 A1 20000622; WO 0036692 A1 20000622

DOCDB simple family (application)
US 9928425 W 19991201; AU 1838400 A 19991201; AU 1838600 A 19991201; AU 2035900 A 19991201; EP 99961895 A 19991201; EP 99961897 A 19991201; EP 99964036 A 19991201; JP 2000588845 A 19991201; US 9928434 W 19991201; US 9928458 W 19991201