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(71) Applicant (for all designated States except US): **A123 SYSTEMS, INC.** [US/US]; Arsenal On The Charles, 321 Arsenal Street, Watertown, MA 02472 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CHIANG, Yet-ming** [US/US]; 52 Lake Road, Framingham, MA 01701 (US).

CHU, Andrew, C. [US/US]; 2 Arlington Street, Unit #14, Cambridge, MA 02140 (US). **JANG, Young-ii** [KR/US]; 27 Turner Terrace, Newtonville, MA 02460 (US). **MEETHONG, Nonglak** [TH/US]; 305 Memorial Drive, Apt. 618A, Cambridge, MA 02139 (US). **KAO, Yu-hua** [—/US]; 305 Memorial Drive, Apt. 618a, Cambridge, MA 02139 (US). **RILEY, Gilbert, N.** [US/US]; 630 Hemenway Street, Marlborough, MA 01752 (US). **PULLEN, Anthony, E.** [US/US]; 95 Hull Street, Belmont, MA 02478 (US). **THOMAS-ALYEA, Karen, E.** [US/US]; 157 Newport Street, Arlington, MA 02476 (US).

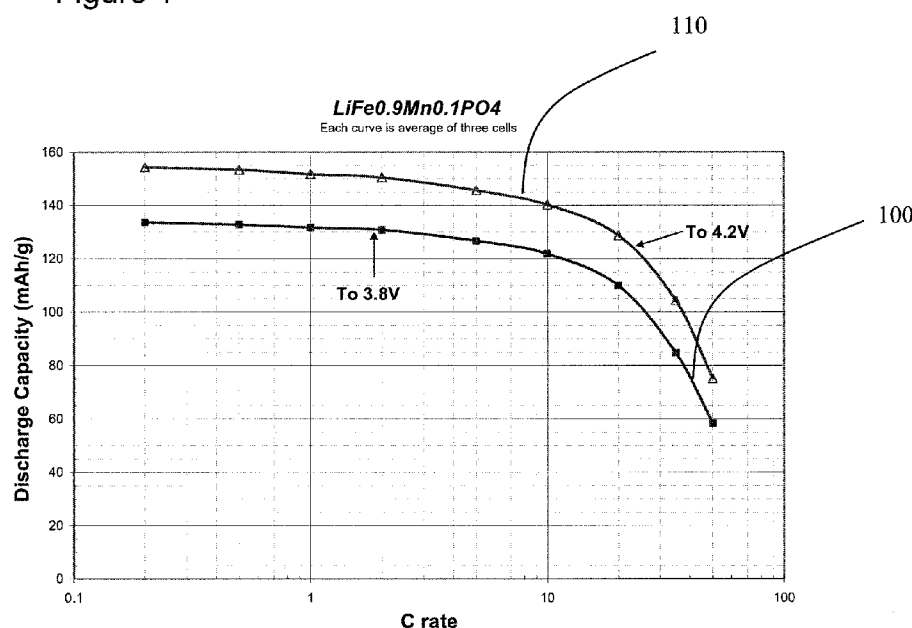
(74) Agents: **SCOZZAFAVA, Mary, Rose** et al.; Wilmer Cutler Pickering Hale And Dorr LLP, 60 State Street, Boston, MA 02109 (US).

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[Continued on next page]

(54) Title: MULTIFUNCTIONAL MIXED METAL OLIVINES FOR LITHIUM ION BATTERIES

Figure 1



(57) Abstract: Electroactive compositions are disclosed for use in lithium ion battery electrodes. The compositions, such as multifunctional mixed metal olivines, provide an electrochemical cell having a plurality of open circuit voltages at different states of charge. The compositions afford improved state-of-charge monitoring, overcharge protection and/or overdischarge protection for lithium ion batteries.

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC H01M 10/44

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKIPASS (KIPO internal) "open circuit voltage", "lithium phosphate", "SOC"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR 1020040033278 A(CANON KABUSHIKI KAISHA) 21 April 2004 See abstract, pages1-18, claims 1-30, figure 1.	1-63
A	JP 19128723 A(SONY CORP.) 24 May 2007 See abstract, paragraphs <1>-<142>, claims 1-8.	1-63
A	US 5691083 A(MARY ELIZABETH BOLSTER) 25 November 1997 See abstract, columns1-8, claims 1-20.	1-63
A	JP 17014637 A(DENSO CORP.) 20 January 2005 See abstract, paragraphs [0001]-[0038], claims 1-8, figure 1.	1-63



Further documents are listed in the continuation of Box C.



See patent family annex.

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Authorized officer

CHOI Byung Chul

Telephone No. 82-42-481-8402



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