(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau





(10) International Publication Number WO 2012/091404 A3

(43) International Publication Date 5 July 2012 (05.07.2012)

(51) International Patent Classification:

**B62D 21/02 (2006.01) **B60R 16/033 (2006.01) **B60K 1/04 (2006.01) **

(21) International Application Number:

PCT/KR2011/010147

(22) International Filing Date:

27 December 2011 (27.12.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 10-2010-0137283

28 December 2010 (28.12.2010)

KR

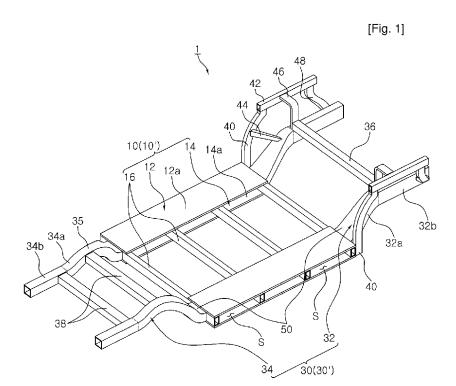
- (71) Applicant (for all designated States except US): POSCO [KR/KR]; 1 Koedong-dong, Nam-gu, Pohang-si, Kyung-sangbook-do 790-300 (KR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KIM, Jae-Hyun [KR/KR]; c/o Gwangyang Iron & Steel Works, 700 Geumho-dong, Gwangyang-si, Jeollanam-do 545-711 (KR). LEE, Hong-Woo [KR/KR]; c/o Gwangyang Iron & Steel

Works, 700 Geumho-dong, Gwangyang-si, Jeollanam-do 545-711 (KR). **LEE, Hyoun-Young** [KR/KR]; c/o Gwangyang Iron & Steel Works, 700 Geumho-dong, Gwangyang-si, Jeollanam-do 545-711 (KR). **KANG, Yeon-Sik** [KR/KR]; c/o Gwangyang Iron & Steel Works, 700 Geumho-dong, Gwangyang-si, Jeollanam-do 545-711 (KR).

- (74) Agent: C&S PATENT AND LAW OFFICE; 13th Floor, Seocho-Pyunghwa Building, 1451-34 Seocho-dong, Seocho-gu, Seoul 137-070 (KR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

[Continued on next page]

(54) Title: UNDERBODY FOR ELECTRIC VEHICLE



(57) Abstract: An underbody for an electric vehicle configured as an electric vehicle lower body includes a multiply divided battery mounting portion and an underbody portion. The multiply divided battery mounting portion enables multiply divided and selective mounting of batteries, and forms a portion of the underbody. The underbody portion is connected to the battery mounting portion and forms another portion of the underbody.



(84) Designated States (unless otherwise indicated, for every Published: kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))
- (88) Date of publication of the international search report:

4 October 2012

International application No. **PCT/KR2011/010147**

A. CLASSIFICATION OF SUBJECT MATTER

B62D 21/02(2006.01)i, B60K 1/04(2006.01)i, B60R 16/033(2006.01)i

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)

B62D 21/02; B62D 25/20; B60K 1/04; B60L 11/00; B62D 21/07

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) eKOMPASS(KIPO internal) & Keywords: electric, vehicle, battery, sliding and underbody

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	JP 2006-182295 A (HONDA MOTOR CO., LTD.) 13 July 2006 See paragraphs 22 - 84 and figures 1 - 8.	1-4,12-19 5-11
Y A	JP 07-108956 A (NISSAN MOTOR CO., LTD.) 25 April 1995 See claim 1 and figures 1 - 7.	5-9 1-4,10-19
Y A	JP 07-052658 A (NISSAN MOTOR CO., LTD.) 28 February 1995 See paragraphs 6 - 21 and figures 1 - 5.	10-11 1-9,12-19
A	JP 2007-106320 A (SUZUKI MOTOR CORP.) 26 April 2007 See figures 1 - 13.	1-19

*	Special categories of cited documents:	"T"	later document published after the international filing date or priority
"A"	document defining the general state of the art which is not considered		date and not in conflict with the application but cited to understand
	to be of particular relevance		the principle or theory underlying the invention
"E"	earlier application or patent but published on or after the international	"X"	document of particular relevance; the claimed invention cannot be
	filing date		considered novel or cannot be considered to involve an inventive
"L"	document which may throw doubts on priority claim(s) or which is		step when the document is taken alone
	cited to establish the publication date of citation or other	"Y"	document of particular relevance; the claimed invention cannot be
	special reason (as specified)		considered to involve an inventive step when the document is

considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

See patent family annex.

Date of the actual completion of the international search

25 JULY 2012 (25.07.2012)

Date of mailing of the international search report

27 JULY 2012 (27.07.2012)

Name and mailing address of the ISA/KR

than the priority date claimed



Korean Intellectual Property Office 189 Cheongsa-ro, Seo-gu, Daejeon Metropolitan City, 302-701, Republic of Korea

Further documents are listed in the continuation of Box C.

document referring to an oral disclosure, use, exhibition or other

document published prior to the international filing date but later

Facsimile No. 82-42-472-7140

Authorized officer

Lee Chang Won

Telephone No. 82-42-481-8728



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2011/010147

			1/18182011/01014
Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2006-182295 A	13.07.2006	None	
JP 07-108956 A	25.04.1995	JP 3016325 B2	06.03.2000
JP 07-052658 A	28.02.1995	None	
JP 2007-106320 A	26.04.2007	None	