

Internal distribution code:

- (A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [X] To Chairmen
(D) [-] No distribution

**Datasheet for the decision
of 17 April 2014**

Case Number: T 1766/13 - 3.3.05
Application Number: 11175941.1
Publication Number: 2398099
IPC: H01M4/58, C01G45/00, C01G49/00,
C01G51/00, C01G53/00
Language of the proceedings: EN

Title of invention:

Lithium secondary battery with high power

Applicant:

LG Chem, Ltd.

Headword:

Method for making lithium battery/LG CHEM LTD

Relevant legal provisions:

EPC Art. 76(1), 109, 111(1)
EPC R. 103
RPBA Art. 11
Guidelines for examination C-IX 1.6, G-IV 5.4

Keyword:

Divisional application - double patenting (see Reasons 2.)
Interlocutory revision - department of first instance should
have rectified decision (yes) (see Reasons 3.)
Reimbursement of appeal fee (no)
Appeal decision -
remittal to the department of first instance (yes) (see Reasons 4.)

Decisions cited:

G 0001/05, G 0001/06, T 0647/93, T 0794/95

Catchword:



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 1766/13 - 3.3.05

D E C I S I O N
of Technical Board of Appeal 3.3.05
of 17 April 2014

Appellant: LG Chem, Ltd.
(Applicant) 20, Yoido-dong
Youngdungpo-gu, Seoul 150-721 (KR)

Representative: HOFFMANN EITLE
Patent- und Rechtsanwälte
Arabellastrasse 4
81925 München (DE)

Decision under appeal: **Decision of the Examining Division of the European Patent Office posted on 2 May 2013 refusing European patent application No. 11175941.1 pursuant to Article 97(2) EPC.**

Composition of the Board:

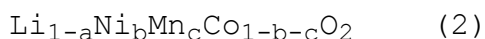
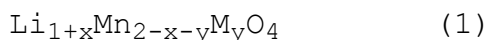
Chairman: G. Raths
Members: H. Engl
P. Guntz

Summary of Facts and Submissions

I. European patent application EP 11175941.1 is a divisional application of EP 05789669.8, published as EP-A-1 730 802, granted on 14 March 2012 (EP-B-1 730 802). Another divisional application EP 11175939.5 is pending as appeal case T 1765/13. All applications were filed in the name of LG Chem, Ltd., KR. They claim the same priority date of 29 March 2004 and designate the same contracting states DE, FR and GB.

II. Claim 1 of EP-B-1 730 802 (the parent application as granted) reads as follows:

"1. A cathode active material for a secondary battery, comprising a lithium manganese-metal composite oxide (A) having a spinel structure and represented by the following general formula 1, and a lithium nickel-manganese-cobalt composite oxide (B) having a layered structure and represented by the following general formula 2:



wherein,

$$0 < x < 0.2;$$

$$0 < y < 0.1;$$

M is at least one element selected from the group consisting of Al, Mg, Ni, Co, Fe, Ti, V, Zr and Zn;

$$-0.1 \leq a \leq 0.1;$$

$$0.3 < b < 0.5; \text{ and}$$

$$0.3 < c < 0.5,$$

wherein the content of the lithium manganese-metal

composite oxide (A) is greater than 50%, based on the total weight of the mixture."

EP-B-1 730 802 also contains an independent claim 5 relating to a lithium secondary battery comprising a cathode according to claim 1.

EP-B-1 730 802 does not contain process or use claims.

- III. The application was refused by the examining division on the ground that the parent and the divisional application may not claim the same subject-matter (principle of prohibition of "double patenting"). In the decision to refuse, the examining division relied in particular on G 1/05 and G 1/06 and the Guidelines C-IX, 1.6, and G-IV, 5.4.
- IV. The instant appeal, which lies from this decision, was filed with letter dated 2 July 2013. With the statement of grounds of appeal, dated 17 July 2013, the applicant (henceforth: the appellant) also filed a fresh set of claims 1 to 4, replacement pages 1, 3 to 5, 7 to 9, 15, 17, 20, 21 and 26 of the description and the document:

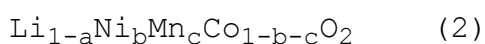
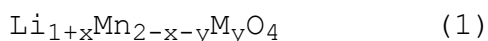
Ingwer Koch, *"The same invention or not the same invention"*, Presentation held at the FICPI 12th Open Forum, Munich, 8 to 10 September 2010, pages 1 to 25.

- V. The new claims 1 to 4 read:

"1. A method for fabricating a cathode comprising the steps of:

- (i) applying a mixture of a cathode active material, a conductive material and a binder to a cathode current collector, and
- (ii) drying;

characterised in that the cathode active material comprises a lithium manganese-metal composite oxide (A) having a spinel structure and represented by the following general formula 1, and a lithium nickel-manganese-cobalt composite oxide (B) having a layered structure and represented by the following general formula 2:



wherein,

$$0 < x < 0.2;$$

$$0 < y < 0.1;$$

M is at least one element selected from the group consisting of Al, Mg, Ni, Co, Fe, Ti, V, Zr and Zn;

$$-0.1 \leq a \leq 0.1;$$

$$0.3 < b < 0.5; \text{ and}$$

$$0.3 < c < 0.5,$$

wherein the content of the lithium manganese-metal composite oxide (A) is greater than 50%, based on the total weight of the mixture."

"2. A method according to Claim 1, wherein the content of the lithium manganese metal composite oxide (A) is in the range of 80 to 95%, based on the total weight of the mixture."

"3. A method according to Claim 1, wherein the pH of the active material is in the range of 8.9 to 10.4."

"4. A method according to Claim 1, wherein the metal (M) is selected from the group consisting of Mg, Al, Co and Ni."

VI. The appellant essentially argued as follows:

The decision of refusal was exclusively based on the ground of double patenting having regard to granted claims 1 and 5 of the parent patent EP-B-1 730 802. Said granted claims were respectively directed to a cathode active material for a secondary battery and a lithium secondary battery comprising such a cathode active material.

In contrast, all claims now pending were directed to a method of fabricating a cathode. Thus the present claims were directed to a different object (a method for fabricating a cathode) as compared to the claims of the granted parent patent. The appellant submitted that the present claims could not reasonably give rise to an objection of double patenting because they related to a fundamentally different aspect, namely a method, than the objects (a cathode active material per se and a lithium secondary battery per se) of the previously granted claims. There was a self-evident clear difference between on the one hand a method for fabricating a cathode and on the other hand a cathode active material for a secondary battery and a lithium secondary battery per se.

The appellant argued that the test for double patenting was not whether the disclosed subject-matters in the parent and divisional were the same, but whether the claims of the two cases were "for the same subject-matter".

These arguments were consistent with the case law of G 1/05 and G 1/06.

VII. Requests:

The appellant requested that the decision under appeal be set aside and that the patent be granted on the basis of claims 1 to 4, amended description pages 1, 3 to 5, 7 to 9, 15, 17, 20, 21 and 26, all filed with letter dated 17 July 2013, and drawing pages 1/3 to 3/3 as originally filed.

Reasons for the Decision

1. Amendments

1.1 European patent application EP 11175941.1 (divisional application) and EP 05789669.8 (parent application) have the same description.

1.2 New claim 1 is based on the disclosure of page 28, items 1 and 2, describing "preferred embodiments of the invention", and page 9, lines 1 to 6, of the description as originally filed. Said passage on page 9 discloses the manufacture of a cathode by applying a mixture of the cathode active material, a conductive material and a binder to a cathode current collector, followed by drying. The new claim feature according to which *"the mixing weight ratio of composite oxide (A) to composite (B) is greater than 50:50"* has a further basis on page 7, lines 1 to 5, of the divisional application as filed.

Claims 2 to 4 are based on the description, page 29, items 3 to 5.

1.3 Therefore, the requirements of Article 76(1) and 123(2) EPC are met.

2. Double patenting

2.1 The decision of refusal was based solely on the ground of double patenting having regard to claims 1 and 5 of the parent patent application as granted (EP-B-1 730 802). Said claims 1 and 5 are directed to a cathode active material for a secondary battery and a lithium secondary battery comprising such a cathode active material, respectively (see Reasons, point II, of this decision).

2.2 In contrast, new claim 1 and dependent claims 2 to 4 are method claims. Thus present claim 1 is directed to a method for fabricating a cathode for a secondary battery, whereas the granted claims of the parent application relate to products, namely a cathode active material and a lithium secondary battery. In the present case, the method claimed in the present application is subject-matter different from both a cathode active material and a lithium secondary battery which are the subject-matters of the claims of EP-B-1 730 802.

The claims of the present application relate to subject-matter which is distinct from the subject-matter of the claims of co-pending divisional application EP 11175939.5 (appeal case T 1765/13). Said divisional application contains only claims directed to the use of a lithium secondary battery comprising a lithium manganese-metal composite cathode, as a high-power, large-capacity battery in an electric vehicle or a hybrid electric vehicle.

- 2.3 The Enlarged Board of Appeal observed in G 1/05 (OJ EPO 2008, 271, Reasons, point 13.4) and G 1/06 (OJ EPO 2008, 307): *"The principle of prohibition of double patenting exists on the basis that an Applicant has no legitimate interest in proceedings leading to the grant of a second patent for the same subject-matter if he already possesses one granted patent therefor. Therefore, the Enlarged Board finds nothing objectionable in the established practice of the EPO that amendments to a divisional application are objected to and refused when the amended divisional application claims the same subject-matter as a pending parent application or a granted parent patent"*.

Evidently, with respect to the present case, a product and a method for its manufacture are not "the same subject-matter" in the sense of G 1/05 and G 1/06.

- 2.4 This is consistent with the Guidelines, C-IX 1.6, instructing as follows: *"The parent and divisional applications may not claim the same subject-matter (see G-IV, 5.4). ... The difference between the claimed subject-matter of the two applications must be clearly distinguishable."*

According to the Guidelines G-IV, 5.4 *"it is permissible to allow an applicant to proceed with two applications having the same description where the claims are quite distinct in scope and directed to different inventions."*

Both criteria are clearly fulfilled in the present case.

- 2.5 Therefore, applying the case law of the Enlarged Board of Appeal, the objection of double patenting cannot be

upheld against the claims as amended. The decision under appeal therefore has to be set aside.

3. Interlocutory revision

3.1 Article 109(1) EPC stipulates that if a department whose decision is contested considers the appeal to be admissible and well-founded, it is to rectify its decision, provided that the appellant is not opposed by another party to the proceedings.

Article 109(2) EPC stipulates that if the appeal is not allowed within three months of receipt of the statement of grounds, it is to be remitted to the board of appeal without delay, and without comments as to its merits.

3.2 In view of the provision of Article 109(2) EPC, the examining division is prevented from commenting as to why it did not consider the appeal well-founded and rectify its decision. It is therefore not for the board to speculate. However, as the appellant drew particular attention to the possibility of granting interlocutory revision (see grounds of appeal, page 3), the failure to rectify must be considered as constituting a substantial procedural violation in accordance with the case law (see T 647/93; OJ EPO 1995, 132).

3.3 According to Rule 103(1) EPC, the appeal fee is to be reimbursed in full in the event of interlocutory revision or where the board of appeal deems an appeal to be allowable, if such reimbursement is equitable by reason of a substantial procedural violation.

While pointing to the substantial procedural violation (see point 3.2), in the present case the board does not consider it equitable to reimburse the appeal fee,

since neither the examination procedure leading to the contested decision nor the decision itself were tainted with procedural shortcomings. The necessity for the appellant to file an appeal arose from the decision itself, not from its later incorrect handling by the examining division, i.e. not from the denial of interlocutory revision (see T 794/95 of 7 July 1997, Reasons, point 5).

4. Remittal

According to Article 11 RPBA, a board is to remit a case to the department of first instance if fundamental deficiencies are apparent in the first instance proceedings, unless special reasons present themselves for doing otherwise.

In the present case, the occurrence of a substantial procedural violation was noted. Reasons not to remit are not apparent to the board.

As the claims have been substantially amended to the extent of creating a fresh case, which is a further argument for a remittal, and in order not to deprive the appellant of the possibility to have its case decided by two instances, the board exercises its power under Article 111(1) EPC to remit the case to the examining division for further prosecution.

5. Oral proceedings

The appellant requested oral proceedings if the application were to be refused. The instant decision to remit may thus be taken without an oral hearing.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.

The Registrar:

The Chairman:



C. Vodz

G. Rath

Decision electronically authenticated