A Study on Amendment to Markush Claims in **Invalidation Proceedings**

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In 2013, the Beijing No. 1 Intermediate People's Court and the Beijing Higher People's Court expressed, successively in three judgments¹, their clear judicial opinions on amendment to Markush claims in the invalidation proceedings, negating the Patent Reexamination Board's (PRB) view of disallowing deletion of Markush elements in the relevant invalidation decisions. It is believed that these court judgments are the only judicial decisions made so far in China on amendability of Markush claims in the invalidation proceedings. In these court decisions the courts presented detailed reasons that patentees should be allowed to amend their Markush claims in the invalidation proceedings, and reversed the relevant administrative decisions made by the PRB.

This article will be presenting an analysis of the amendability of Markush claims in the invalidation proceedings by way of defining the Markush claim and giving an overview of the PRB's examination practice, relevant practice in some foreign countries, and the above court judgments.

I. Definition of Markush claims

Markush claims are a common type of claims. The claims have been so named after Eugene Markush, an inventor who succeeded in using such a claim for the first time in the United States. Markush claims are specially common in the field of compounds, and specific provisions on them are set forth in Chapter 10 Several Provisions on Examination of Applications for Invention Patents in Chemical Field of Part II of the Guidelines for Patent Examination as of 2010 that "if an application defines, in a claim, several parallel optional or alternative elements, the claim is a Markush claim"2. An optional element in a Markush claim is known as a "Markush element". For example, a Markush claim may be drafted in a form as follows:

"The compound is of the following general formula,

wherein R¹ is pyridy1; R²-R⁴ are methyl, tolyl or phenyl"

Markush claims are defined in similar ways in other countries and regions. For example, it is provided in Section 803.02 of the Manual of Patent Examination Procedure (MPEP) as of 2012 that "A Markush-type claim recites alternatives in a format such as 'selected from the group consisting of A, B and C.' See Ex parte Markush, 1925 C.D. 126 (Comm'r Pat. 1925) ". For another example, in Section 5 Markush grouping, Chapter V-4 of Part F of the Guidelines of Examination in the EPO as of 2013, a definition is made as this: "Where a single claim defines (chemical or non-chemical) alternatives, i.e. a so-called 'Markush grouping', unity of invention should be considered to be present if the alternatives are of a similar nature".

II. Examination practice and controvercial issues relating to amendment to Markush claims in invalidation proceedings in China

In the examination as to substance and the reexamination proceedings, the standard in respect of amendment to Markush claims is substantially the same as that relating to the other common types of claims, and no controverse has arisen in practice. In recent years, however, there has been controverses on the amendability of Markush claims in the invalidation proceedings, and inconsistences exist in invalidation decisions made by the PRB.

Rule 69, paragraph one, of the Implementing Regulations of the Patent Law as of 2010 provides: "in the course of examination of the request for invalidation, the patentee for the patent for invention or utility model concerned may amend his or its claims, but may not broaden the scope of patent protection", a provision which corresponds to Rule 68, paragraph one, of the Implementing Regulations of the Patent Law as of 2001.

Further provisions are set forth in Section 4.6, Chapter 3 of Part IV of the Guidelines for Patent Examination as of 2010 (the same provisions were made in the Guidelines for Examination as of 2001 and 2006):

"4. 6. 1 Principles of amendment

Any amendment to the patent documents of a patent for invention or utility model shall be limited to the claims only, and shall follow the following principles:

- (1) the title of the subject matter of a claim can not be changed:
- (2) the extent of protection can not be extended as compared with that in the granted patent;
- (3) the amendment shall not go beyond the scope of disclosure contained in the initial description and claims; and
- (4) addition of technical features not included in the claims as granted is generally not allowed.

The patent document of a design patent cannot be a-

mended

4.6.2 Manners of Amendment

Subject to the above principles of amendments, the specific manners of amendment are generally limited to deletion of a claim, combination of claims, and deletion of a technical solution."

In practice, regarding amendment to Markush claims in the invalidation proceedings, this controversy exists: is deletion of any Markush element from a Markush claim "deletion of a technical solution" mentioned in the above Guidelines for Patent Examination? And the PRB has made varied conclusions on it.

1. Invalidation Decision No. 9197 allowing deletion of Markush elements

The Invalidation Decision No. 9197 made by the PRB on 18 December 2006 was directed to the invention patent (90110125.7), with the patented claim relating to a method for making glutamic acid derivative indicated in a structural formula or its pharmaceutically effective salt, wherein it was defined that the substituent was selected from several options in the general formula.

Within the prescribed time, the patentee amended the claim as follows: in claim 1, deleting the "lower alkanediyl" and 1, 4-phenylene substituted by halogen" from the definition of group R3 in the original claim 1; deleting "alkyloylamino" from the definition of R5, "1-6 alkyloyloxy" from the definition of group R6, " or R5 is alkyloylamino or R6 is alkyloyloxy"; deleting "or through acid and alkaline catalysis" from the hydrolysis step, "when R5 is alkyloylamino, converting R⁵ into amino and when R⁶ is alkyloyloxy, converting R⁶ into hydrogen"; from claim 2, deleting "alkyloylamino" in the definition of R5; from claim 3, deleting "wherein 6-amino is optionally protected into amido by alkyloyl".

In the PRB's invalidation decision, these amendments were deemed to be deletion of the parallel alternative solutions from the original claim, and were not found contrary to Article 33 of the Patent Law and Rule 68 of the Implementing Regulations of the Patent Law3. As this shows, it was concluded in the PRB's Invalidation Decision No. 9197 that deletion of Markush elements in a Markush claim was "deletion of parallel technical solutions", and should be allowed in the invalidation proceedings.

Additionally, in Invalidation Decision No. 9323 made on 22 December 2006, Invalidation Decision No. 11435 made on 27 April 2008 and Invalidation Decision No. 16296 made on 31 March 2011, the PRB accepted all the deletions of

2. Invalidation Decision No.16266 disallowing deletion of Markush elements

In Invalidation Decision No. 16296 made on 21 March 2011 the PRB, refused, once again, to accept deletion of Markush elements. The case involved the patent (97126347.7), claiming a method for making a medicament composition for the treatment or prevention of high-blood pressure, wherein a compound defined with a general formula or its pharmaceutically effective salt or ester was used. with the said general formula comprising several substituents.

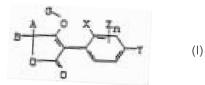
In responding to the invalidation request, the patentee submitted the amended claims of the patent in suit, in which the words "or ester" were deleted from "or its pharmaceutically effective salt or ester"; the "alkyl having 1-6 carbon atoms" in the definition of R4 in claim 1; and all the other technical solutions, except the carboxyl and formula COOR5a (wherein R_{5a} is (5-methyl-2-oxo-1, 3-dioxole-4-yl) methyl) in the definition of R₅ in claim 1.

During the oral hearing, the panel informed the patentee that regarding the amended text, the deletion of "or ester" from claim 1 was acceptable, but deletions of substituents R₄ and R₅ in the Markush compounds of general formula (I) were contrary to the relevant provision of Rule 68 of the Implementing Regulations of the Patent Law; and the amended text was not acceptable⁴. However, in the Invalidation Decision were not given the reasons for not accepting the amendments.

3. Invalidation Decision No.16241 not accepting deletion of Markush elements

In Invalidation Decision No. 16241 made on 30 March 2011, the PRB again refused to accept the amendment made to the Markush claim in the invalidation proceedings and gave the reasons in detail. Claim 1 of the patent (94115915.9) in suit was as follows:

"3-aryl-4-hydroxy-∆3-dihydrofuranone derivatives of formula (I) and the stereomerically and enantiomerically pure forms of these compounds and their mixture,



wherein

X representing C₁-C₆ alkyl, halogen, Y representing C₁-C₆ alkyl, halogen, Z representing C₁-C₆ alkyl, halogen,

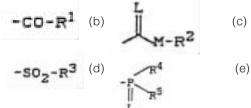
N representing a number from 0-3, or in which X and Z together with phenyl to which they are bonded form naphthalene of the following formula:

wherein the definition of Y is the same as above, or wherein:

A and B together with the carbon atom to which they are bonded form a saturated or unsaturated 3- to 8-membered ring, which can be substituted by C₁-C₆ alkoxy⁵, or

A and B together with the carbon atom to which they are bonded represent a C₃-C₈-membered ring, in which two substituents together with the carbon atoms to which they are bonded represent a saturated C₅-C₇ ring, which can be optionally substituted by C₁-C₆ alkyl, C₁-C₆ alkoxy or halogen and which can be interrupted by oxygen,

G represents hydrogen(a) or groups of the following formula:



wherein

L and M respectively represents oxygen or sulfur,

R¹ represents optionally halogen-substituted C₁-C₁₄ alkyl, C2-C14 alkylenyl, or C3-C8 cycloalkyl, which is optionally substituted by halogen or C₁-C₆ alkyl,

or phenyl which is substituted by C₁-C₆ alkyl,

phenyl C₁-C₆ alkyl which is optionally substituted by halogen, C₁-C₆ alkyl, C₁-C₆ alkoxy, C₁-C₆ halogenoalkyl or C₁-C₆-halogenoalkoxy,

heteraryl optionally substituted by halogen and/or C1-C6 alkyl,

 R^2 represent C_1 - C_{20} alkyl, C_1 - C_8 alkoxy C_2 - C_8 alkyl or C_1 - C_8 polyalkoxy C2-C8 alkyl, wherein every group is optionally substituted by halogen, phenyl or benzyl, wherein every group is optionally substituted by halogen, nitro, C₁-C₆ alkyl, C₁-C₆ alkoxy or C₁-C₆ halogenoalkyl,

R³, R⁴ and R⁵ independently of one another represent optionally halogen-substituted C₁-C₈ alkyl, C₁-C₈ alkylthio, or represent phenyl, phenoxy or phenylthio, wherein every group is optionally substituted by halogen, nitro, cyano, C₁-C₄ alkoxy, C₁-C₄ halogenoalkoxy, C₁-C₄ alkylthio, C₁-C₄

halogenoalkylthio, C₁-C₄ alkyl or C₁-C₄ halogenoalkyl."

In the invalidation proceedings, the patentee deleted, in the prescribed time limit, the "optionally" in the definition of some substituents and "can" in "can be" in the definition of "A and B" in claims 1-3.

In Invalidation Decision No. 16241, the PRB concluded that claims 1-3 were Markush claims presented in general formula: it had several substituents and each substituent had several alternatives. These Markush claims were a whole technical solution formed by way of generalising the structure-effect relations on the basis of specific embodiments. The various alternatives in a Markush claim belonged to identical or different substituents. These alternatives, as a whole, were not parallel, and it was impossible for them to be parallel technical solutions in the claim: deletion of one or some alternatives in the definition of one or some substituents in the Markush claims was not deletion of one of parallel technical solutions mentioned in the Guidelines for Patent Examination. Besides, firstly, allowing deletion of some alternatives in the invalidation proceedings, as the deletion was very much uncertain, would render the patent uncertain; and secondly, as a patent could make partial deletion again and again to keep his patent valid after one invalidation request was filed after another. Markush claim would become an indestructible stronghold, allowing a patentee to benefit from a broad protection scope without being faced with the associated risks, which was obviously unfair. Therefore, deletion of the kind should not be allowed in the invalidation proceedings⁶.

4. PRB's recent academic view

Besides in the above Invalidation Decisions Nos. 16266 and 16241, the PRB has also expressed, in recent years, its view of disallowing deletion of Markush elements in the invalidation proceedings in academic activities. Some PRB examiners took the view in their published articles that "if a Markush claim is viewed as a set of several technical solutions, allowing optional deletion of some alternatives of some variants in the invalidation proceedings, it would be good only for patent protection, but would go against the public requests for the clarity and stability of a patent, which runs counter to the aim of the provisions on the ways of amendments made in the invalidation proceedings set forth in the Guidelines for Patent Examination". They have gone so far as to conclude that a Markush claim is "essentially a generalisation of a technical solution based on specific embodiments, and protects a whole technical solution; a solution

formed by way of arrangement and combination of definitions of substituents is only something mental, not an independent technical solution. In the invalidation proceedings, optionally deleting one (or some) alternative(s) in the definitions of one (or some) substituent(s) in a Markush claim of general formula should not be deletion of one of parallel technical solutions in the meaning of the Guidelines for Patent Examination, and normally should not be allowed"7. This view is almost the same as that expressed in the Invalidation Decision No. 16241. Thus, disallowing deletion of Markush elements in the invalidation proceedings is accepted by a considerable number of PRB examiners, and represents a recent mainstream view of the PRB.

5. Convtrovercial issues in practice

The preceding Invalidation Decisions disallowing deletion of Markush elements (especially the Invalidation Decision No. 16241) and the academic view held by some PRB examiners mainly present the following reasons for disallowing deletion of Markush elements in the invalidation proceed-

- i) A Markush claim outlines a whole technical solution, and various alternatives do not form parallel technical solu-
- ii) Allowing deletion of Markush elements affects the certainty of a patent; and
- iii) Allowing deletion of Markush elements makes it possible for a patentee unduly benefit from amendment.

These are also main issues of controversy on the allowability of deletion of Markush elements in the invalidation proceedings.

III. Practice in relation to amendment to Markush claims in Europe

The opposition proceedings before the EPO is similar to the invalidation proceedings in China, and the EPO's research on the issue in its practice of examination of amendment to Markush claims serves, to an extent, as meaningful reference. In the examination practice before the EPO, regarding the ways of amendment made by deleting Markush elements in Markush claims, as the decision T0615/95 accepting the amendment in the reexamination procedure, the decision T0369/07 accepting the amendment in the opposition proceedings, the Decisions T0859/94 and T0948/02 not accepting amendment in the opposition proceedings and the like showed, in the opposition proceedings before EPO,

whether to accept deletion of Markush elements depends on the facts or circumstances involved in a case. The EPO does not express the view that a Markush claim is not a set of parallel technical solutions and, accordingly, disallows deletion of Markush elements in the opposition proceedings. In these cases, in respect of deletion of Markush elements in the reexamination and opposition proceedings, the EPO's basic view is that "Such shrinking of the generic group of chemical compounds is not objectionable if these deletions do not lead to a particular combination of specific meanings of the respective residues which was not disclosed originally or, in other words, do not generate another invention"8.

IV. Judicial opinions of courts in China

Of the three court judgments mentioned at the beginning of this article, the Beijing No. 1 Intermediate People's Court's Judgment No. 3225 and the Beijing Higher People's Court's Judgment No. 2046 are respectively made in the first and second instance cases involving the review of the PRB's Invalidation Decision No. 16241 mentioned in section 3 of II of this article, and the Beijing Higher People's Court's Judgment No. 833 is a second-instance judgment made in the appellant case involving the PRB's Invalidation Decision No. 16266 mentioned in section 2 of II of this article. In the three court judgments, detailed judicial opinions are given in relation to amendment to Markush claims in the invalidation proceedings, with reactions the courts made to the controversial issues in practice.

1. The Beijing No. 1 Intermediate People's Court's judicial opinions

In Judgment No. 3225, the Beijing No. 1 Intermediate People's Court makes it clear that deletion of Markush elements from a Markush claim in the invalidation proceedings should be allowed.

Starting form the character of the Markush claims, the Beijing No. 1 Intermediate People's Court clearly points out that it is allowable to incorporate parallel technical solutions in one claim, and a Markush claim is such a typical claim incorporating parallel technical solutions in one claim, and denied the view presented in the PRB's Invalidation Decision No. 16241 that "a Markush claim outlines a whole technical solution"9.

Following that, the Beijing No. 1 Intermediate People's Court expounded the necessity for allowing amendment to Markush claims in the invalidation proceedings, the necessity for limiting the amendment and the limitations that should be imposed on the amendment. For the Beijing No. 1 Intermediate People's Court, owing to the limited capability of patentees and examiners, it is possible for inventions to be unduly patented, and the limited capacity is not subjectively caused by any one interested party; hence, it is necessary to give a patentee a chance to amend his or its claims, so that his or its contribution made to the society with his or its patent is duly rewarded. However, amendment made in the invalidation proceedings should not broaden the protection scope, or damage would be done to the public interests and to any third party who has taken some action. Directed to the Markush claims, a specific type of claims, a special requirement "that amendment made in the invalidation proceedings should not broaden the protection scope" is to make it impossible that a compound of a general formula claimed in such a claim should not be equal to an independent compound or specific compounds, in which exist specific compounds that are not clearly presented in the application as filed, otherwise, it will conflict with the principle underlying the novelty examination, and render an invention relating to a selected compound of general formula baseless¹⁰.

Further, the Beijing No. 1 Intermediate People's Court concluded that the patentee's deletion of the word "can" in "can optionally select" in the definitions of some substituents and in "can be" in the definition of "A and B" in the published text of the patented claims was a deletion of one of the two parallel technical solutions, which did not broeaden the protection scope of the patent as issued, and such deletion should be accepted because a person skilled in the art can understand that "can optionally select" meant "select" or "not select", that "can be substituted" meant "can be substituted' or "can not be substituted", and that "can be interrupted with oxygen" meant "can be interrupted with oxygen" or "can not be interrupted with oxygen".

The Beijing No. 1 Intermediate People's Court refutted, in detail, the risk of allowing deletion of Markush elements mentioned in the PRB's Invalidation Decision No. 16241. Regarding the statement that "allowing deletion of Markush elements affects the certainty of a patent", the Beijing No. 1 Intermediate People's Court took the view that uncertainty in protection scope rests with both Markush claims and any other claims, and we should not disallaow a patentee to make a deletion just because he or it has larger room to take a step back with a Markush claim". 11 As for allowing a patentee to make deletion would enable him or it to seek undue benefits, the Beijing No. 1 Intermediate People's Court opined that an interested party's cognitive limitation with regard to a prior art and invention is particularly obvious in connection with an invention defined with a Markush claim, and not allowing a patentee to delete a parallel technical solution will subject him or it to risks he or it is unable to avoid, which is obviously unfair; if an interested party drafts only one claim, which defines a relatively large scope, the interested party will be faced with the risk of delayed patenting and constant subsquent patent right affirmation procedures as a result of an uncertain patent. The PRB's said concern is by no means enough to allow the presence of exception to disallowing deletion of parallel technical solutions in Markush

For these reasons, the Beijing No. 1 Intermediate People's Court decided, in the Judgment No.3225, to have reversed the PRB's Invalidation Decision No. 16241.

2. The Beijing Higher People's Court's judicial opinions

In its Judgments Nos. 2046 and 833, the Beijing Higher People's Court made it clear as to whether amendment to Markush claims in the invalidation proceedings is allowable or not, and gave substantially the same reasons.

For the Beijing Higher People's Court, a Markush claim is a set of several parallel technical solutions; if Markush elements are believed not to be parallel to one another, but to be a whole technical solution, the problem of unity of invention should not exit with the Markush claim, and the belief that a Markush claim is a whole technical solution is logically implausible¹³. The Beijing Higher People's Court also contended, in terms of fairness, that deletion of Markush elements in the invalidation proceedings should be allowed: due to limitation in patent drafting and examination, if a patented Markush claim is deemed to be a whole technical solution and it is not allowed to delete any one option of any one variant, it is inevitably difficult for a patentee to defend his/its patent against another party's invalidation request, and very easy for the patent to be declared invalid, which would render the existence of Markush claim meaningless. Said deletion, which is one of a technical solution and amendment that narrows down the protection scope of a patent without doing any damage to the public interest, should be allowed14.

It was exactly for these reasons that the Beijing Higher People's Court decided, in its Judgments No. 2046, to have upheld the Beijing No.1 Intermediate People's Court's Judgment No.3225, and in Judgment No.833, to have reversed the first-instance judgments and the PRB's Invalidation Decision No. 16266.

V. Comments and analysis

It is argued in this article that a Markush claim is essentially a set of parallel technical solutions, and deletion of a Markush element in the invalidation proceedings, essentially deletion of one of the parallel technical solutions, should be allowed.

1. Literal interpretation

From the angle of literal interpretation, obviously, a Markush claim is essentially a set of parallel technical solutions. According to the definition of the Markush claim in the Guidelines for Patent Examination as mentioned in the first part of this article, technical solutions respectively defined by "several parallel alternative elements" are mutually independent, and, of course, parallel to one another. No matter how many alternative elements there are, a Markush claim may be divided into specific technical solutions. The reason that the form of the Markush claim is used to make it easy to draft a claim, as far as the protection scope is concerned, drafting claims of parallel technical solutions and drafting them into one Markush claim is of no difference at all. The statements that a Markush claim is "an organic whole" or outlines "a whole technical solution" in the PRB's Invalidation Decisions Nos. 16266 and 16241 are legally baseless, the concept of a whole technical solution is fuzzy in complication. According to some classification standards, any related technical solutions may be referred to as "an organic whole" or "a whole technical solution".

2. System interpretation

From the angle of system interpretation, not viewing a Markush claim as a set of parallel technical solutions conflicts with the provisions on unity of invention set forth in the Guidelines for Patent Examination. It is provided in the Section on "Unity of Invention and Divided Applications" in Chapter 6 of Part II of the Guidelines for Patent Examination that "the determination of whether two or more inventions belong to a single general inventive concept shall be made without regard to whether the inventions are claimed in separate independent claims or as alternatives within a single claim. In either case, the same criteria shall be applied to the determination as to the presence of unity. The latter case often occurs in markush claims. For the examination of unity of invention with regard to a Markush claim, Section 8.1, Chap-

ter 10 of this Part shall apply." 15 This shows that the Guidelines for Patent Examination acknowledge that a Markush claim is a typical case of claiming parallel technical solutions in the claims. Besides, in Section 8.1 "Unity of Markush Claims" in Chapter 10 "Several Provisions Relating to Examination of Applications for Patent for Inventions in Chemical Field" of Part II of the Guidelines for Patent Examination, it is specially provided for the standard for determining the unity of Markush claims. If a Markush claim is not a set of parallel technical solutions according to the view expressed in the PRB's Invalidation Decisions Nos. 16266 and 16241, then. the problem of unity should not have existed with Markush claims. This shows that the PRB's view is not in line with its own provisions set forth in the Guidelines for Patent Examination.

3. Balance of interests

From the angle of balance of interests, it is very much unfair not allowing a patentee to delete Markush elements in the invalidation proceedings.

As mentioned in Judgment No. 3225, owing to the limited cognitive capability of patentees and the limited technical and cognitive capability of examiners, it is possible for inventions to be unduly patented, and the limited capability is not subjectively caused by any one interested party; hence, it is necessary to give a patentee a chance to amend his or its claims, so that his or its contribution made to the society with his or its patent is duly rewarded. For a Markush claim, the limitation in this regard is especially obvious. What's more, it is more possible for a patent to be unduly granted. For fairness case, amendment to Markush claims should be allowed.

Considerable limitation exists in the invalidation proceedings for a patentee to make amendment, so a cautious attitude should be adopted towards limiting amendment to claims in the invalidation proceedings, and in the absence of legal and sufficient justification, special limitation, other than those provided for in law and regulations, should not be imposed on the mode of amendments, otherwise irreparable damage would be done to the rights and interests of patentees, thus making it possible for them to obtain benefit not compatible with his or its contribution. The Guidelines for Patent Examination do not impose any special limitation on amendment to Markush claims in the invalidation proceedings, and theoretically, the general provisions of the Guidelines for Patent Examination should apply thereto. Markush claims differ from the other types of claims only in form, and

a substantive right should not be treated in a different manner due to the formal difference in connection with drafted claims.

Disallowing deletion of Markush elements in the invalidation proceedings leaves a patentee almost no room to take step back and confronds an issued patent with great risk of invalidation, and, as stated in Judgments Nos. 2046 and 833, renders Markush claims meaningless. It is imaginable that, in this case, to avoid the risk of invalidation of a Markush claim as a whole, a patent applicant is forced to divide it into several claims by separately listing the specific compounds a claim would otherwise cover. In case of more complicated combinations and arrangements, one Markush claim is likely to be divided into hundreds or thousands of claims, which is likely to add unnecessary burden on patent applicants, without making the examination convenient and without changing, as far as the public are concerned, the public notification of the protection scope of the claims.

In Invalidation Decision No. 16241 and its academic research, the PRB expresses its concern about the risk of deletion of Markush elements would bring: allowing deletion of Markush elements affects the certainty of patents and allowing deletion of Markush elements would enable patentees to seek undue benefits through amendment. Nonetheless, these concerns are unnecessary.

As for the certainty of patents, all patents are possible to be amended into a statutory form in the invalidation proceedings, all patents are possible to be changed in their protection scope, and such changes do not only exist with Markush claim. What's more, the Implementing Regulations of the Patent Law and Guidelines for Patent Examination have set forth stringent provisions regarding amendment made in the invalidation proceedings, under which the public can expect all possible changes in a patent. For this reason, amendment along the line will not affect the certainty of the patent.

Regarding whether it is possible for patentees to seek undue benefits through amendment, first of all, the scope of a Markush claim is not necessarily larger than that of a claim of any other type. As a Markush claim outlines a set of parallel technical solutions, a patentee may draft it by enumerating the technical solutions or put them on a par to seek a protection scope exactly identical with that for a Markush claim. Then, so long as a claim drafted by a patentee complies with the relevant law provisions, he or it is entitled to claim to a relatively large scope of protection. If a Markush

claim has a larger scope, the patentee will be faced with relatively greater risk of invalidation as risks and benefits match each other, and the same is true with claims of all types. Next, deletion of a parallel technical solution in a Markush claim narrows down its protection scope and does no damage to the public interests, so disallowance thereof is not justifiable.

4. Other requirements concerning amendment to Markush claims in invalidation proceedings

Besides being required to be in the prescribed form of amendment under the Guidelines for Patent Examination, amendment to claims in the invalidation proceedings should not "exceed or go beyond the cope of disclosure" under Article 33 of the Patent Law. For Markush claims, in practice, there exists a special provision in relation to the provision that "amendment should not go beyond the scope of disclosure" of Article 33 of the Patent Law, namely, when a Markush compound is amended into a specific compound, if said specific compound is not recited in the description and claims as filed, the amendment is likely to have exceeded the scope of disclosure even if said specific compound is covered by the Markush claim¹⁶, a matter also pointed out in the Judgments Nos. 3225 and 833¹⁷.

In the invalidation proceedings, while deletion of a Markush element is one of the required form under the Guidelines for Patent Examination, such an amendment is still not acceptable if deletion of the Markush element generates a specific compound that was absent in the description and claims as filed as such an amendment is contrary to the provision that "amendment may not go beyond the scope of disclosure.

VI. Conclusion

There should not exist any problem with regard to deletion of Markush elements in the invalidation proceedings, and such deletion used to be allowable in the PRB's examination practice. In recent years, however, the PRB disallowed such amendments as clearly seen in some of its invalidation decisions and academic research, which has caused considerable controversy. The aforementioned court judgments, having, by way of detailed reasoning, denied the PRB's view along the line and clarified confusions in the practice, are of certain exemplary significance in the methodology of application of law and in the process of reasoning, and will be of certain significance of guidance in the

relevant practice.

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- ¹ The three court judgments were rendered in the order of time as follows: the Beijing No. 1 Intermediate People's Court's Administrative Judgment No. Yizhongzhixingchuzi 3225/2011; the Beijing Higher People's Court's Administrative Judgment No. Gaoxingzhongzi 833/2012; and the Beijing Higher People's Court's Administrative Judgment No. Gaoxingzhongzi 287/2013.
- ² The Guidelines for Patent Examination as of 2010, P. 287.
- ³ Section 2 "On Determination of the Text" in Part 2 of the Invalidation Decision No. 9197.
- ⁴ Section on "Oral Hearing" in Part 1 "Cause of Action" of the Invalidation Decision No.16266.
- ⁵ The underlines have been drawn by the authors to highlight the amendments the patentee had made in the invalidation proceedings.
- ⁶ Section 2 "On the Text" in Part 2 "Grounds of Decision" of the Invalidation Decision No. 16241.
- ⁷ Ren Xiaolan, Tentative Analysis of Deletion of "Parallel Technical Solutions" in Patent Invalidation Proceedings, carried in the Patent Law Study 2011, the Publishing House of Intellectual Property, 2013, Pp. 184-206.
- ⁸ The EPO Board of Appeals' Decision T615/95, paragraph 1 the part on "catchword", P.2.
- 9 Judgment No. 3225, last paragraph on P.14 to the first paragraph on P. 15
- 10 Judgment No. 3225, last paragraph on P.15 to the first paragraph on P. 17.
- ¹¹ Judgment No. 3225, last paragraph but one on P.17.
- 12 Judgment No. 3225, last paragraph on P.17 to the first paragraph on P. 18.
- 13 Judgment No. 2046, last paragraph on P.14 to the first paragraph on P. 15 .
- ¹⁴ Judgment No. 2046, the second paragraph on P.15 and Judgment No. 833, last paragraph on P.14 to the second paragraph on P. 15.
- ¹⁵ The Guidelines for Patent Examination as of 2010, the second paragraph on P. 192.
- ¹⁶ See the Reexamination Decision No. 40895. Similar practice can be found in the EPO. See the EPO Technical Board of Appeals Decision No. T7/86.
- $^{\rm 17}$ Judgment No. 3225, last paragraph on P.16 to the first paragraph on P. 17; and Judgment No. 833, last paragraph on P.14.