Question Q209

National Group: **Korean Group**

Title: **Selection Inventions – the Inventive Step Requirement, other Patentability Criteria and Scope of Protection**

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Questions

General

Groups are asked to give a summary of the legal position as regards a patent for a purported selection invention in their jurisdiction in relation to the following:

Q1 Legal developments on selection inventions

What specific types of inventions are recognized under the concept of selection invention and are patentable in your jurisdiction? Do you have any examples of selection inventions in a field other than chemical, pharmaceutical or material science fields?

There are no specific limitations to technical fields or types of selection inventions in relation to their recognition and protection under the Korean law. However, selection inventions seem to have been at issue only in chemical, pharmaceutical and material science fields.

Q2 Novelty

Groups are asked to discuss any issues that should be considered with respect to the novelty of selection inventions. For example, is merely carving a range out of a broad prior art disclosure sufficient to make a selection invention novel? Is a different advantage or use, or the same advantage with an unpredictable improvement required for a selection invention to be novel?

Under Korean pratice, a selection invention is defined as an invention which is comprised partially or entirely of features (species) which are selected from a broader (generic) disclosure of the prior art. For a selection invention to be patentable, i) the species must not be specifically disclosed in the prior art, and ii) each of its species must give rise to qualitatively different or quantitatively remarkable effects over those of the prior art. The above two factors are divided into requirements for novelty (requirement i) and inventive step (requirement ii). Even though a selection invention results in remarkably advantageous effects, the patentability of the selection invention shall not be acknowledged if it does not meet the novelty requirement (requirement i). However, the standard for "specific disclosure" in requirement i) is not yet

firmly settled. That is, the relevant court decisions have not been consistent on this issue.

Q3 Inventive step or non-obviousness

Groups are asked to discuss the inventive step or non-obviousness requirements in their jurisdiction. If experimental data is used to back up the inventive step or non-obviousness requirement can it be submitted after initial patent filing? Are there any prerequisites or limitations on the late submission of data?

The selection invention should provide qualitatively different or quantitatively remarkable effects. The selection invention's specification should clearly describe such effects. However, it is not obliged to describe experimental data in the specification to show such effects. If there is a reasonable doubt about the effects, then the applicant can submit such substantiating evidence after the application has been filed (same for general inventions). On the other hand, an effect of a selection invention that is not described in the original specification cannot be proven by a document submitted after filing the application.

Q4 Sufficiency and/or written description requirements

Groups are asked to discuss the sufficiency or written description requirements in their jurisdiction. There may be several aspects to this question: (1) the threshold for sufficiency; (2) the allowable timing for submission of experimental data; (3) the time frame within which sufficiency or written description requirements must be satisfied; and (4) the breadth of claim scope that can be supported by a limited number of examples of asserted or proven advantages. With respect to item (1), please discuss to what extent all members of the class selected by the patentee are required to possess the requisite advantage in your jurisdiction. Is there an absolute requirement that all of the selected class possess the relevant advantage, or is the patentee excused if one or two examples fall short? Also, with respect to item (4) above, if a new utility is asserted as a selection invention, would it suffice to claim a particular range or selection of components which have been found to be associated with such a new utility or would it be necessary to recite such a new utility in the claims?

As noted with respect to Q3 above, the description requirements are considered to be met if the specification of the selection invention clearly provides qualitatively different or quantitatively remarkable effects. That is, experimental data specifically confirming such effects or comparison results against prior art do not need to be described in the original specification. However, such effects should be clearly and sufficiently described so that a person of ordinary skill in the art can understand the effects. There is no concrete standard with respect to "clear and sufficient" descriptions of an effect. However, according to the relevant court precedents, a mere description such as "very superior in view of the prior art" does not meet the description requirements.

As to Item (1), the Korean courts consistently require that all species of a selection invention must give rise to qualitatively different or quantitatively remarkable effects in view of the prior art. As to Items (2) and (3), experimental data can be submitted after the application has been filed, e.g. in the course of

examination. However, the description requirements are assessed based on the original specification. Further, supplementing an insufficient description may be considered as adding new matter, which is not allowed. As to Item (4), if a selection invention is characterized in finding a new use, then such use must be included in the claim description. However, a compound limited by its use is not allowed since this is deemed as claiming the compound *per se*, and claiming the "use" itself (so-called "use claim") is also not allowed. Thus, a product claim directed to a composition (including compound) limited by its use or a process claim is used.

Q5 Infringement

If a certain advantage or superior results were the reasons for the grant of a patent on a selection invention, does such advantage or superior result have to be implicitly or explicitly utilised by a third party for an infringement to be established?

If a selection invention is claimed as a new use, what are the requirements to establish infringement? Would a manufacturer of a product that may be used for the new use infringe the patent? Does the intention of an alleged infringer play any role in the determination of infringement?

If a selection invention relates to a new use that is recited in a claim, then infringement is established if a product has the same use as the selection invention. The intent of an infringer is not a factor for determining infringement. Further, "inducement of infringement" is not recognized in Korea. However, if a patent is directed to a product invention, then the act of making or selling certain articles used exclusively for producing the patented product may be deemed as an "indirect infringement." If the patent relates to a process invention, then the act of making or selling certain articles used exclusively for working said process invention may also constitute an "indirect infringement." However, since the selection invention often has uses other than the claimed use, the possibility of establishing indirect infringement is quite low.

Q6 Policy

Groups are asked to give a short commentary as to the policy that lies behind the law on selection inventions in their jurisdictions, and then to consider whether or not such policy considerations are still valid today as technology continues to advance.

Selection inventions have been protected in Korea to promote technological advancements and developments of fundamental inventions. This is in line with the purpose of the Korean Patent Act. However, since the inventors and/or applicants of selection and prior art inventions are identical in many cases (thus potentially being usable to extend patent rights), some may view that the selection inventions tend to have a negative impact upon the industrial development. This is one of the reasons why the patentability of selection inventions is examined more strictly. Further, since selection inventions became easier to obtain with the evolution of technology, this may be a contributing factor of why they are examined more strictly.

Q7 Novelty

In example 1 would the prior disclosure of the compounds containing the generic class of radicals anticipate any claim to a specific compound having a particular radical, or group of specific compounds having a selection of particular radicals in your jurisdiction? In the analysis, does it matter how wide the prior disclosed generic class of compounds is – i.e. would the analysis be different if the prior disclosed generic class consisted of 1,000,000 possible compounds (very few of which were specifically disclosed) as opposed to merely, say, 10?

The novelty of example 1 can be assessed differently on a case-by-case basis. In the past, if the compound of a selection invention was not described as a specific example in the prior art, then the novelty was often recognized. However, the scope of "specific disclosure" of the prior art for deniying the novelty of a selection invention has been recently expanded. Thus, the novelty of a selection invention is no longer easily recognized. The following factors are considered in determining novelty: i) whether there is any literal description on the selection invention in the prior art; ii) whether a person of ordinary skill in the art can directly recognize the existence of the selection invention in view of the descriptions in the prior art and the technical common knowledge at the time of filing; and iii) whether examples of the selection invention and the examples of the prior art are substantially identical. The number of individual species (compounds) that fall under the generic class of the prior art is not explicitly mentioned as a factor for deciding novelty (although it seems to affect the decision to some extent).

Q8 Inventive step or non-obviousness

In example 2 would any of the three possibilities constitute an inventive step over the prior art in your jurisdiction? Further, if, say, scenario (iii) does constitute an inventive step over the prior art, what scope of protection should the inventor be able to obtain? Should the inventor be able to obtain protection for the products per se (that happen to have this advantageous property), or should any patent protection available be limited to the use of the products for the advantageous property (as an adhesive) not possessed by, and not obvious over the prior art?

In example 3, the inventive step seems to be recognized only in case of Item (iii). As noted with respect to Q4, if a patent is granted with possessing sufficient inventiveness, then the scope of protection is limited to the case when the compound is used according to the claimed use (as an adhesive in the above example).

Q9 Sufficiency and/or written description requirements

To what extent are all members of the class selected by the patentee required to possess the requisite advantage in your jurisdiction? Is there an absolute requirement that all of the selected class possess the relevant advantage, or is the patentee excused if one or two examples fall short?

As noted with respect to Item (1) of Q4, it is required that all species of a selection invention to give rise to qualitatively different or quantitatively remarkable effects in view of the prior art.

Q10 Infringement

By reference to example 3 to what extent is evidence of the knowledge of the advantageous property of the selection, or intention of the infringer as to its supply, required to find infringement in your jurisdiction?

As noted with respect to Q5, according to the Korean Patent Act, the act of manufacturing and supplying a related compound without any directions on its use (as in example 3) cannot be considered as constituting patent infringement. If the compound is an article that is exclusively used for the claimed use of the selection invention (i.e., producing an adhesive), then this constitutes an indirect infringement.

Q11 Policy

Groups are asked to consider, in respect of example 1 / 2, whether it matters how much effort the inventor has invested in arriving at his selection in order to found a valid selection patent. The answer to this question is closely related to the policy considerations that underpin the grant of selection patents and the incentive / reward equation involved. The inventor may have expended considerable time and money in trawling through the whole host of possible compounds encompassed by the prior disclosed generic class, and the particular selection that he has made may constitute a leap-forward in the field. Surely the inventor should be rewarded for his efforts and obtain protection? On the other hand, it could be argued that such considerations may have been relevant in an age when the inventor's efforts actually involved many man-years of careful and painstaking laboratory work, but are now increasingly irrelevant in an age of combinatorial synthesis when large varieties of different compounds can be manufactured in a fraction of the time. Are such considerations relevant?

A patent awards its inventor for disclosing his/her invention to the public and contributing to the technical development. Thus, such an award is for the value of the disclosed technology, and not for the effort and time spent by the inventor. As noted with respect to Q6, selection inventions became easier to obtain with technical developments. This should be considered on a case-by-case basis in determining the inventive step of a selection invention. On the other hand, such technical developments may be irrelevant to and should not affect the rationale for protecting selection inventions.

Harmonisation

Q12 *Groups are asked to analyse what should be the harmonised standards for the patentability of selection inventions. In particular, the items discussed in Q1-Q6 and the examples discussed in Q7-Q10 above should be referred to.*

It is necessary to harmonize the standards for assessing the novelty (Q2 and Q7) of selection inventions. There are cases in which a selection invention is denied patent protection as lacking novelty, although it possesses unexpected and remarkable effects (and, thus, an inventive step). Thus, a clear and consistent standard seems to be necessary. Further, since international trades are rapidly growing, there appears to be a need to harmonize the infringement standards of selection inventions (Q5 and Q10).

Q13 *Groups are also asked to recommend any issues for harmonisation not referred to in Q11 above.*

Harmonization should be made in the manner of reading/determining the scope of the prior art teachings. The cases discussed in Q12 in which the court denies the novelty of a selection invention notwithstanding the possibility for the invention to meet the inventive step requirement, results from an overly broad recognition of teachings in the prior art reference. There should be a clear guideline as to how broadly a prior art teaching should be determined beyond explicit teachings in the prior art reference.

Q13 *Groups are asked to outline any other potential issues that merit discussion within AIPPI as regards selection inventions.*

There are questions as to whether or not a selection invention should be protected beyond the regular norm of the patent system, i.e. whether selection inventions should be protected under special/exceptional rules which are not applied to other types of inventions. The Committee/AIPPI may wish to discuss on this issue.

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Summary

For a selection invention to be patentable, i) the species must not be specifically disclosed in the prior art (novelty), and ii) each of its species must give rise to qualitatively different or quantitatively remarkable effects over those of the prior art (inventive step). The standard for "specific disclosure" in requirement i), however, does not seem to have been firmly settled yet. This may result in cases where a selection invention satisfying the inventive step requirement in item ii) fails to satisfy the novelty requirement in item i). Such situation should be contradictory to the purpose of the patent system – protecting innovative technologies.

All species of a selection invention as defined in the claims must give rise to qualitatively different or quantitatively remarkable effects in view of the prior art. There should not be an exception to this rule in view of the notion of the protection of selection inventions.