<table>
<tr><td>Date</td><td>September 17, 2014</td><td rowspan="2">Court</td><td rowspan="2">Intellectual Property High Court, Second Division</td></tr>
<tr><td>Case number</td><td>2013 (Ne) 10090</td></tr>
<tr><td colspan="4">– A case wherein the court found that, in order to make a re-defense of correction as a counter-allegation against the allegation of the limitation on the exercise of rights based on Article 104-3 of the Patent Act in a patent infringement litigation, a request for a trial for correction or a request for correction must be legally filed in principle.
– A case wherein the court found that when it is legally difficult for a patentee to file a request for correction, etc., such circumstances shall be taken into consideration on a case-by-case basis from the standpoint of fairness and when there are special circumstances that do not require the filing of a legal request for correction, etc., the patentee may be allowed to make an allegation of re-defense of correction without satisfying such requirement.</td></tr>
</table>

Reference: Article 104-3, paragraph (1) and Article 126, paragraph (2) of the Patent Act and Article 126, paragraph (2) of the Patent Act prior to the revision by Act No. 63 of 2011

Number of related right, etc.: Patent No. 3377209

In this case, Plaintiff 1, who is the assignor of the patent granted for an invention titled "confocal spectroscopy" (the "Patent"; Patent No. 3377209), and Plaintiff 2, who is the assignee thereof, claimed against the Defendant payment of damages due to tort, etc. based on the allegation that the spectrometer manufactured and sold by the Defendant infringes the patent right in question.

In the judgment in prior instance (judgment of the Tokyo District Court of August 30, 2013, No. 2010 (Wa) 42637), the court accepted the Defendant's defense of invalidity based on Article 104-3 of the Patent Act and dismissed the plaintiffs' claims. Please refer to the summary of the relevant action of seeking rescission of the JPO decision (judgment of the Intellectual Property High Court of September 17, 2014, No. 2013 (Gyo-Ke) 10227) for the outlines of the invention in question and the cited invention.

The plaintiffs submitted a re-defense of correction as a counter-allegation against the defense of invalidity mentioned above in the second instance. However, since the relevant action of seeking rescission of the JPO decision mentioned above is pending between Plaintiff 2 and the Defendant and a request for a trial for correction cannot be filed before the trial for patent invalidation becomes final and binding pursuant to Article 126, paragraph (2) of the Patent Act revised by Act No. 63 of 2011, Plaintiff 2 has not filed a request for correction or a request for a trial for correction related to the abovementioned correction.

In this judgment, the court substantially made the same findings and decisions as those made in the judgment in prior instance with respect to the defense of invalidity mentioned above. In addition, the court dismissed the appeal by finding as follows and rejecting the re-defense of correction argued by the plaintiffs.

"In patent infringement litigations, […] it is construed that, in principle, the relevant patentee must actually file a legal request for correction, etc. in alleging a re-defense of correction. […] when it is legally difficult for a patentee to file a request for correction, etc., such circumstances shall be taken in consideration on a case-by-case basis from the standpoint of fairness, and when there are special circumstances that do not require the patentee to have filed a legal request for correction, etc., it should be construed that the patentee would be allowed to make an allegation of re-defense of correction without satisfying such requirement. […] however, although Plaintiff 2 […] could have filed a request for correction or a request for a trial for correction, […] it may be found that Plaintiff 2 ended up newly arguing a re-defense of correction in the second instance. […] No special circumstances can be found that do not require the patentee to have filed a legal request for correction, etc."

Judgment rendered on September 17, 2014
2013 (Ne) 10090, Appeal Case of Seeking Injunction Against Infringement of Patent Right, etc.
(Court of prior instance: Tokyo District Court 2010 (Wa) 42637)
Date of conclusion of oral argument: July 7, 2014

Judgment

Appellant (Plaintiff): Renishaw plc.
Appellant (Plaintiff): Renishaw Transducer Systems Ltd.
Appellee (Defendant): Nanophoton Corporation

Main text

All of the appeals in question shall be dismissed.
The appellants shall bear the cost of the appeal.
The additional period for filing a final appeal or a petition for acceptance of final appeal against this judgment shall be 30 days.

Facts and reasons

No. 1 Object of the appeal
1. The judgment in prior instance shall be revoked.
2. The appellee shall pay to the appellant, Renishaw plc., 336,000,000 yen and money accrued thereon at the rate of 5% per annum for the period from December 9, 2010, to the date of completion of the payment.
3. The appellee shall pay to the appellant, Renishaw Transducer Systems Ltd., 80,000,000 yen and money accrued thereon at the rate of 5% per annum for the period from December 9, 2010, to the date of completion of the payment.
4. The appellee shall bear the court costs for both the first and second instances.
5. Declaration of provisional execution.

No. 2 Outline of the case
The abbreviations of terms and the meaning thereof shall follow those used in the judgment in prior instance in addition to those added in this judgment. The terms "plaintiff" and "defendant" contained in the abbreviations used in the judgment in prior instance shall be deemed to be replaced with "appellant" and "appellee," respectively, and replacement of other terms shall follow this replacement, as appropriate.
1. Summary of the case

(1) Gist of the claims

In this case, the appellant, Renishaw Transducer Systems Ltd. ("Appellant RTS"), which transferred the patent right granted for an invention titled "confocal spectroscopy" (the patent right, the patent and the invention shall be referred to as the "Patent Right," "Patent" and "Invention," respectively; Patent No. 3377209), and the appellant, Renishaw plc. ("Appellant Renishaw"), which obtained by transfer the Patent Right, alleged against the appellee that the spectroscopic analyzers which are manufactured and sold by the appellee and are stated in the attached list of articles of the judgment in prior instance (the "Appellee's Products") fall within the technical scope of the Invention. Based on this allegation, Appellant RTS claimed payment of damages in an amount of 80,000,000 yen (Article 102, paragraph (3) of the Patent Act) and delay damages accrued thereon at the rate of 5% per annum as prescribed in the Civil Code for the period from December 9, 2010, which is the day immediately following the day on which the complaint for this action was served, to the date of completion of the payment, based on tort of infringement of the Patent Right during the period it held the Patent Right, while Appellant Renishaw claimed payment of damages in an amount of 336,000,000 yen and delay damages accrued thereon at the rate of 5% per annum as prescribed in the Civil Code for the period from December 9, 2010, which is the day immediately following the day on which the complaint for this action was served, to the date of completion of the payment, based on general tort (which is based on the premise that the appellee infringed the Patent held by Appellant RTS).

The Patent Right has lapsed by the expiration of the duration, i.e. June 8, 2012.

(2) Contents of the Invention (after the constituent features are divided)

A. Invention 7

[A] A means for illuminating a sample to obtain a spectrum of scattered light;

[B] a means for analyzing said spectrum;

[C] a photodetector;

[D] a means for passing at least one component of said analyzed spectrum to said photodetector, bringing the light scattered from a given plane in said sample into focus in a given area of said photodetector and preventing the light scattered from other planes in said sample from being brought into focus on said photodetector;

[E] a spectroscopic analyzer comprising the constituent features mentioned in [A] to [D] above, wherein;

[F] said light passes the one-dimensional space filter comprising a slit and produces a confocal behavior in the first dimension;

[G-1] the light received in said given area in said photodetector is detected without

including the light received outside said given area or separately from such light;
[G-2] said given area is formed in a manner to produce a confocal behavior in the second dimension which crosses said first dimension;
[G-2(i)] the light scattered from the focal point in said given plane in said sample passes said slit by being narrowed down to the focal point as a spot in said slit and the light scattered in front of or behind said focal point in said given plane in said sample is not focused in said slit;
[G-2(ii)] the same lens is used for irradiating light on said sample and collecting the scattered light from said sample;
[G-2(iii)] said photodetector is a charge-coupled device (CCD);
[H] a spectroscopic analyzer characterized by the features mentioned in [F] to [G-2(iii)] above.
B. Invention 8
[I] Said given area of said photodetector is long and thin;
[J] a spectroscopic analyzer stated in Claim 7 that is characterized by the feature mentioned in [I] above.
C. Invention 9
[K] Said given area in said photodetector is extending in a direction crossing said slit;
[L] a spectroscopic analyzer stated in Claim 7 or 8 that is characterized by the feature mentioned in [K] above.
D. Invention 10
[M] Said photodetector comprises an array of pixels;
[N] a spectroscopic analyzer stated in any of Claims 7 to 9 that is characterized by the feature mentioned in [M] above.
E. Invention 13
[O] Said spectrum is a spectrum of Raman scattered light;
[P] a spectroscopic analyzer stated in any of Claims 7 to 12 that is characterized by the feature mentioned in [O] above.
(3) Determination made in the prior instance

On August 30, 2013, the court of prior instance rendered a judgment to dismiss all of the claims made by the appellants for the following reasons: When a specific setup (the "Setup") is made in the spot lighting mode, the Appellant's Products fall within the technical scopes of all of Inventions 7 to 10 and Invention 13 (the "Inventions"). However, all of the Inventions could have been easily conceived of by a person ordinarily skilled in the art based on the invention stated in "Kōkando Raman Bunkōhō no Saikin no Dōkō to Handōtai Chouhakumaku eno Ouyou (Recent trends of supersensitive Raman spectroscopy and its application to thin film)" (Exhibit Otsu 16 Invention) and thus all of the patents granted for the Inventions should be invalidated in an invalidation trial.

(omitted)

No. 4 Court decision

1. Facts found

In addition to those stated in Section 2 of Part No. 2 above, the following facts are found.

(1) Regarding the Inventions

The description in question ("Description") and corrected description contain the following statements (Exhibits Ko 2, 27 and 28).

"Technical field

The present invention relates to an apparatus and method in which a spectroscopy is used to analyze a sample by, for example, making use of the Raman effect." (lines 43 to 46 in the third paragraph)

"Background art

The Raman effect is a phenomenon in which a sample scatters incident light of a given frequency and turns it into a frequency spectrum which has lines caused by interaction of the incident light with the molecules making up the sample. Different molecular species have different characteristic Raman spectra, and thus this effect can be used to analyze the molecular species present in the sample.

[…] WO 90/07108 also discloses that the resulting Raman scattered light may be brought into focus, in other words, focused onto a charge-coupled device (CCD), which is a two-dimensional photodetector array.

Other spectroscopic analyzing techniques are also known in which a sample is irradiated with monochromatic or even polychromatic light, and the scattered light is analyzed. […] It is possible to use such techniques in a confocal method, in order to analyze only light scattered from a certain plane in the sample. This involves passing the scattered light through a spatial filter comprising a very small pinhole (typically 10μm) at the focus of a lens system. Light scattered from the required plane is brought to a tight focus at the pinhole and passes through it, whereas light from other planes is not so tightly focused and is blocked. However, such a spatial filter is difficult to set up correctly, because of the need for careful alignment of the optical components to ensure tight focusing of the scattered light on the very small pinhole." (line 47 in the third paragraph to line 34 in the fourth paragraph)

"Disclosure of the invention

The present invention is a spectroscopic analysis method comprised of the step of irradiating light on the sample to obtain a spectrum of scattered light; a step of analyzing said spectrum; and a step of passing at least one component of said analyzed spectrum to a photodetector, bringing the light scattered from a given plane in said sample into focus in a given area of said photodetector and preventing the light scattered from other planes in said sample from being brought into focus on said photodetector, which is characterized in that said light passes the one-dimensional space filter comprising a slit and produces a confocal behavior in the first dimension; the light received in said given area in said photodetector is detected without including the light received outside said given area or separately from such light; and said given area is formed in a manner to produce a confocal behavior in the second dimension which crosses said first dimension.

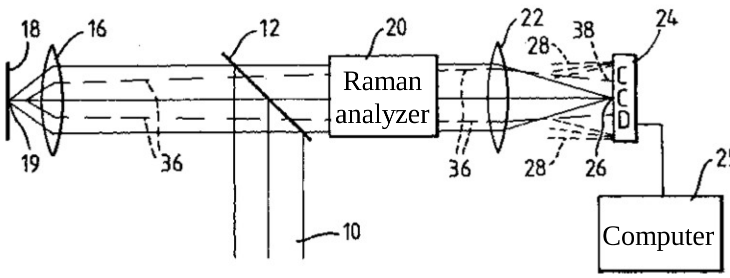
The present invention also provides a spectroscopic analyzer comprised of the means for irradiating light on a sample to obtain a spectrum of scattered light; means for analyzing said spectrum; a photodetector; means for passing at least one component of said analyzed spectrum to said photodetector, bringing the light scattered from a given plane in said sample into focus in a given area of said photodetector and preventing the light scattered from other planes in said sample from being brought into focus on said photodetector, which is characterized in that said light passes the one-dimensional space filter comprising a slit and produces a confocal behavior in the first dimension; the light received in said given area in said photodetector is detected without including the light received outside said given area or separately from such light; said given area is formed in a manner to produce a confocal behavior in the second dimension which crosses said first dimension; the light scattered from the focal point in said given plane in said sample passes said slit by being narrowed down to the focal point as a spot in said slit and the light scattered in front of or behind said focal point in said given plane in said sample is not focused in said slit; the same lens is used for illuminating said sample and collecting the light scattered from said sample; and said photodetector is a charge-coupled device (CCD)." (line 40 in the fourth paragraph to line 6 of the fifth paragraph [after the correction])

"Best mode for working the invention

The first embodiment of the apparatus illustrated in Figure 1 […]. Input laser beam 10 is reflected at 90° by dichroic filter 12, placed at 45° to the optical path. The laser beam is then sent to a microscope objective lens 16, which focuses the laser beam to a spot at focal point 19 on sample 18. Light is scattered by the sample at this irradiated spot, and is collected by microscope objective lens 16 and collimated into a parallel beam, and returns to dichroic filter 12. Filter 12 rejects Rayleigh scattered light having the same frequency as input laser beam 10, and transmits the Raman scattered light. The Raman scattered light is then sent to Raman analyzer 20.

Raman analyzer 20 may comprise one or more tunable non-dispersive filters for selecting a Raman line of interest […]. Alternatively, it may comprise a dispersive element such as a diffraction grating […]. In either case, the light from analyzer 20 is focused by lens 22 onto a suitable photodetector. A two-dimensional photodetector array is preferred. In the present embodiment, charge-coupled device (CCD) 24 is used. The CCD consists of a two-dimensional array of pixels and is connected to a computer, which acquires data from each of the pixels and analyzes it as required. Where Raman analyzer 20 comprises a tunable non-dispersive filter, light of the selected Raman frequency is focused at 26 on CCD 24. Where a dispersive element such as a diffraction grating is used, analyzer 20 produces not a single spot but a spectrum having various bands as indicated by broken lines 28, spread out in a line along CCD 24." (line 19 of the fifth paragraph to line 1 of the sixth paragraph)

" [Figure 1]



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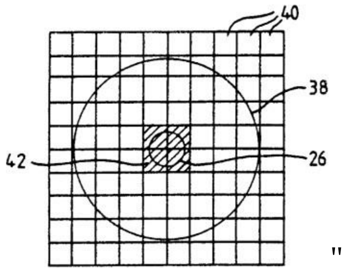
"Light from focal point 19 of lens 16 is brought to a tight focus on the CCD. However, as illustrated by broken lines 36, light from in front of or behind focal point 19 is brought to a more diffuse focus. In the case where a non-dispersive filter is used for analyzer 20, the effect is illustrated in Figure 2, which is a plan view of part of CCD 24. Individual pixels of the CCD are shown as squares 40. The pixels may typically have a pitch of 22μm or less. Circle 26 represents the distribution of light scattered from focal point 19, while circle 38 represents the more diffuse focus of light scattered from elsewhere in the sample. When analyzing data, the computer stores together several pixels 42, shown shaded, which receive the light focused at 26. Extraneous light from elsewhere within circle 38 is ignored by the computer. This is readily achieved by computer software which reads the data from each pixel 42 serially, in turn, adding together the data from pixels 42 and ignoring the rest.

The combination of the CCD with the computer thus gives the same effect as the pinhole in a conventional spatial filter. If lens 16 is focused on the surface of the sample, it is possible to filter out the light scattered from behind the surface within the sample, so that analysis of the surface itself may be carried out. Alternatively, it is possible to deliberately focus lens 16 to a point within the sample, thereby filtering out light scattered from the surface. Thus, the confocal behavior has been achieved without the use of an extra spatial filter." (lines 2 to 26 in the sixth paragraph)

"[Figure 2]



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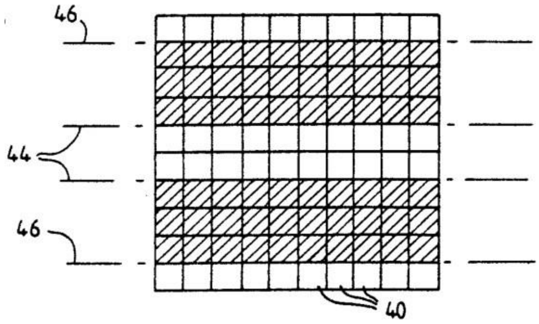
"When a diffraction grating or other dispersive element is used as analyzer 20 in Figure 1, and it is desired to view a full Raman spectrum rather than just a single Raman band, full confocal spectroscopy is not possible with such simple software. Partial confocal behavior can be achieved, however, by operating CCD 24 and computer 25 as indicated in Figure 3. The diffraction grating disperses the Raman spectrum from the sample across the CCD in line. The width of the line is the smallest for the light which has been scattered from focal point 19, for example, in the unshaded region between lines 44 on the CCD in Figure 3. Light from planes outside the focal plane which contains focal point 19 would be scattered into a broader line, such as defined between lines 46 in Figure 3. Therefore, to obtain partial confocal behavior, computer 25 is programmed (in a similar manner to that described above) to capture data only from those pixels of the CCD lying in the region between lines 44, and excluding light received elsewhere on the CCD. This excludes light received in the shaded region in Figure 3 from outside focal point 19. (lines 27 to 45 in the sixth paragraph)

"[Figure 3]



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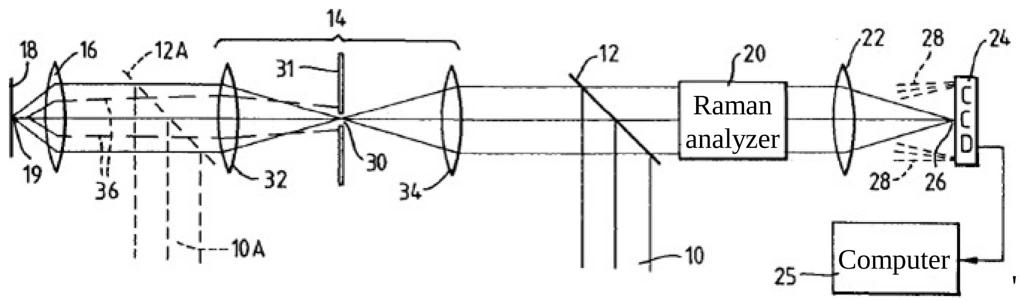
"The reason that the structure of Figure 3 exhibits only partial confocal behavior is because the spatial filtering provided by the CCD and the computer occurs only in one dimension and not two. This can be overcome by using the embodiment of Figure 4, consisting of the same elements as found in Figure 1, with the addition of spatial filter 14. The same reference numbers have been used as in Figure 1.

Spatial filter 14 comprises two lenses 32 and 34 and screen 31 having slit 30 that extends vertical to the plane of the paper. Lens 32 brings the parallel beam of scattered light down to a very tight focus which passes through slit 30, and lens 34 collimates the light back into a parallel beam. Input laser beam 10 is likewise focused down to a very small spot to pass through slit 30. The effect of slit 30 is that microscope objective 16 acts confocally. That is, substantially, only the light scattered at focal point 19 of lens 16 passes through slit 30. As indicated by broken lines 36, light which is scattered in front of or behind focal point 19 is not brought into focus at aperture 30, and is therefore substantially blocked by screen 31." (line 46 in the sixth paragraph to line 14 in the seventh paragraph)

"[Figure 4]



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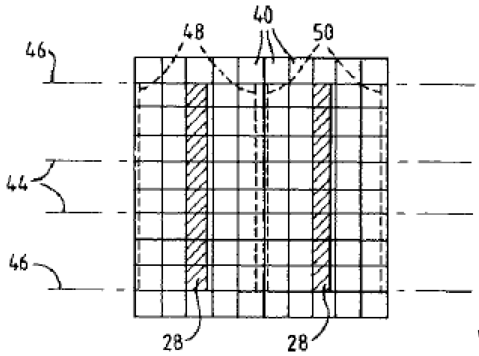
"Figure 5 is a plan view, corresponding to Figures 2 and 3, of the CCD when used with the embodiment of Figure 4. Light passing through slit 30 is dispersed by diffraction grating analyzer 20 into individual bands 28 of the Raman spectrum. Without slit 30, light corresponding to bands 28, but scattered from outside focal point 19, would appear in broader regions lying between the pairs of broken lines 48 and 50. It will be found that slit 30 provides only one-dimensional spatial filter, such that each of Raman bands

28 has been spatially filtered in the horizontal direction in Figure 5. However, some light from outside focal point 19 can still pass through slit 30 and be received in the area in Figure 5 which corresponds to the shaded regions in Figure 3. To overcome this, computer 25 is programmed as in the embodiment of Figure 3, to process only the data from the pixels lying between lines 44 and to exclude the other pixels lying between lines 46. This provides spatial filtering in the vertical direction, and together with the horizontal spatial filtering provided by slit 30, full two-dimensional confocal behavior is achieved." (lines 15 to 33 in the seventh paragraph)

"Figure 5



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"An advantage of this structure over a structure in which a pinhole is used instead of slit 30, is that it is much easier to align a slit than a pinhole." (lines 34 to 36 in the seventh paragraph)

"If desired, it is possible to provide dichroic filter in the position indicated in broken lines at 12A in Figure 4, instead of in the position indicated at 12. The laser beam then enters the system at 10A, instead of 10. This structure has the advantage that the input laser beam does not have to pass through spatial filter 14. Consequently, there is no risk of the laser beam hitting the edges of aperture 30 and causing scattering from there. Such scattering would be undesirable, since unless the edges of the aperture are kept extremely clean, any dirt will cause unknown Raman scattered light to pass through analyzer 20 and be recorded on CCD 24. Conversely, however, arranging the dichroic filter at position 12 has the advantage that the easily visible laser light can be used to adjust the position of aperture 30 when setting up the apparatus. With the dichroic filter at 12A, the Raman scattered light passing through the dichroic filter to spatial filter 14 is insufficient to be visible. Furthermore, placing the dichroic filter at 12 means that spatial filter 14 can easily be added to the existing apparatus […], between the microscope and the remainder of the apparatus, and is easily accessible for adjustment." (line 37 in the seventh paragraph to line 6 in the eighth paragraph)

"In order to act as a spatial filter, the width of slit 30 should be very small, typically

10μm or even less. A maximum width might be 50μm. Thus, slit 30 should not be confused with the entrance and exit slits commonly provided in conventional monochromators, which are much larger, say 200μm at the least, in order to collect an adequate amount of light." (lines 7 to 13 in the eighth paragraph)

"In the various embodiments of the present invention mentioned above, the CCD was used as the detector. However, in order to detect light within circle 26 and block the light outside this circle in Figure 2, it is possible to use the accurate size of, for example, a single photodetector of an avalanche photodiode. This structure can also be used to detect a single Raman band generated by diffraction grating. In order to detect light between lines 44 and to block other lights in Figures 3 and 5, a one-dimensional (i.e. linear) photodetector array with a suitable width can be used." (lines 14 to 23 in eighth paragraph)

(2) Regarding Exhibit Otsu 16 Invention

The following statements are contained in Exhibit Otsu 16 ("Recent trends of supersensitive Raman spectroscopy and its application to thin film"), which is a publication distributed in 1990, which is prior to the priority date of the Patent (Exhibits Otsu 16 and 17).

"Raman spectroscopy is one kind of inelastic scattering wherein light of $E_0 \pm E$ with an energy different from that of the original light is emitted by the absorption or emission of elementary excitation (energy shall be abbreviated as E) such as lattice vibration (phonon) when light with energy E_0 (photon) enters a substance. […] It is a non-destructive and contactless method and has the advantages such that it can be conducted regardless of the environment such as temperature and pressure as well as the shape such as solid, liquid or vapor, or the size." (lines 5 to 12 on page 1)

"Nowadays, various types of multichannel detectors are available in the market. Photodiode array detector with image intensifier (hereinafter abbreviated as IPDA), charge-coupled device detectors (hereinafter abbreviated as CCD) and position-sensitive photomultiplier tube (hereinafter abbreviated as PS-PMT) are the three representative kinds of multichannel detectors. Currently, IPDA is most popular for multi Raman photometry and the other two kinds have just become popular. Table 1 shows the comparison of major parameters. These detectors have respective advantages and disadvantages and their relative evaluation is yet to be decided. When these detectors are used, it is possible to easily detect signals in about 0.1 count per second converted by normal photomultiplier tube. Please note that in this article, the dark counts of PS-PMT are figures obtained as those of the one-dimensional detector as mentioned below.

These systems have realized Raman detection of various thin films. For example, with respect to the signal detection of Langmuir-Blodgett film from one monolayer, reports have been made by using triple grating spectrometer and IPDA or triple grating spectrometer and cooled charge-coupled device detector (hereinafter abbreviated as CCD). In addition, Raman signal detection of germanium from several monolayers has been carried out by using triple grating spectrometer and PS-PMT.

Table 1 Performance comparison of multichannel detectors

	IPDA	CCD	PS-PMT
Quantum efficiency	5-15%	40-80%	15%
Wavelength region	400-800 nm	300-1000 nm	300-900nm
Readout noise	1500 e	10 e	None
Spatial distortion	1%	None	5%
Sensitivity position variation	20%	2-7%	5%
Linearity	Not more than 1%	Not more than 2%	2-5%
Dark	0.005 c/s	0.01 c/s	0.002-0.008 c/s
Readout time	10-20 mc	1-10 s	1 ms
Spatial resolution	50-100 µm	18-30 µm	40-70 µm

(line 23 on page 2 to Table 1 on page 3)

"3.1 Selection of detectors

Among multiple detectors, IPDA and CCD, which are analog detectors, show a response proportional to the energy to strong pulse noise. Thus, normally, pulse noise appears here and there in the course of adding up feeble signals for a long period of time, resulting in unignorable numbers. Empirically, these noises result in noises of 0.001-0.01 count per second and channel in terms of photomultiplier tube. These are mainly caused by the high energy particle beam from the space and thus are difficult to avoid. As one of the measures, there is a solution using software by repeating measurement for several times and excluding peaks that are not reproduced. However, this could damage the signals per se and thus cannot be considered as a fundamental solution. In contrast, in digital detectors such as PS-PMT, signals are always counted one by one based on photon counting. Normally, measurement is carried out by sorting noises with high or low energy and accurate signals using pulse-height discriminator and even if cosmic ray noise is included, it will only be counted as one noise. Since we are aiming to detect ultraweak signals in this experiment, we adopted PS-PMT for the reasons mentioned above. However, attention should be paid to the fact that the selection will differ based on the purpose of the experiment such that CCD detector excels if focus is placed on the absolute value of quantum efficiency or sensitivity of the infrared region."(line 12 on page 3 to line 8 on page 4)

"3.2 Two-dimensional detector and astigmatism correction

In spectrometers using grating, reflective optical elements such as spherical mirrors must be used instead of transmission-type optical elements such as lens, and thus, coaxial optical system cannot be used and the problem of astigmatism occurs. When the angle α between the normal direction of spherical mirror and incident direction of the light is not 0, the focal length differs in the incident surface and in the direction vertical thereto. When the focal length is set to be f, the difference in this focal length is given by $f/\sin^2\alpha$. Properly, an optical system with no astigmatism should be formed by using an ellipsoidal mirror which has corresponding curvature radii. However, normal spectrometers are designed to have the focal point in the abovementioned incident surface come to the position of the slit by omitting this process. The point source on the entrance slit linearly extends in the length direction (hereinafter referred to as the Y direction) of the slit on the exit slit but the focal point is obtained in the dispersion direction (hereinafter referred to as the X direction) of the light and thus the performance of the spectrometer is roughly normal within the range wherein the approximation of $\sin^2\alpha \ll 1$ is established. Thus, ideas currently known include designing the optical system as compact as possible and making α small within the range that does not spoil the brightness, or in the case of double spectrometers, arranging the optical system by sterically folding it back so that the astigmatisms that are generated by the two spectrometers mutually cancel each other. The image of the exit slit would be slightly arched instead of linear in a strict sense and thus, technology using an arched slit is also developed.

In the case of single channel detectors or one-dimensional directors, this kind of spread of the image in the Y direction can all be added up if such spread falls within the range of the spread of the light-receiving surface of the detector, and thus there will be no problem. However, in the case of two-dimensional detectors, this issue is important in examining the sensitivity limit of the device as a whole. In two-dimensional detection, signals are added up in the Y direction and used after being converted into a one-dimensional detector in the X direction. For example, in the case of CCD detectors, this process of adding up is called binning. By reducing the number of elements to be subjected to binning, incorporation of noises can be reduced. This effect is more remarkable in the case of PS-PMT detectors. If hundreds of channels must be added up in the Y direction due to the spread of the image by astigmatism, a PS-PMT detector does not necessarily have remarkable high sensitivity in comparison to one-dimensional detectors such as IPDA as described in the comparison shown in Table 1. However, if the number of channels which must be added up can be reduced by reducing the spread of the image in the Y direction at the position of the detector by correcting the astigmatism, the effective sensitivity significantly improves.

Noise of PS-PMT is mainly caused by any light or electronic noise in the vicinity of the photoelectric surface as is the case of ordinary photomultiplier tubes and this is normally 10-20 count per second. Accordingly, if the pixel position is specified in the two-dimensional array of 1024×1024 pixels, the noise therein is $1\text{-}2\times10^{-5}$ count per second and pixel. PS-PMT has been used as a simple one-dimensional multiple detector in Raman spectroscopy through multiple detection. When, on the light receiving surface of PS-PMT, the direction of the spectrum is set in the X-axis and the direction vertical thereto is set in the Y-axis, spectra spreads for 200 to 400 pixels in the Y-axis direction in each wavelength in ordinary spectroscopes, and the one-dimensional data is obtained by adding these up. If all 1024 pixels are added up in the Y-axis direction, the noise in each channel would be $1\text{-}2\times10^{-2}$ count per second, and even if only the central 200-400 pixels in which signals exist are added up, such noise would be $2\text{-}8\times10^{-3}$ count per second. This kind of noise level is not so different from the values obtained by IPDA or highly sensitive CCD and it makes sense that PS-PMT in particular has not been considered to be supersensitive in comparison to others.

However, if the spread of spectra in the Y-axis direction can be drastically narrowed, the noise per channel should be substantially reduced. For example, if the spread in the Y-axis direction is narrowed to not more than 5 pixels, the noise level could be reduced to $5\text{-}10\times10^{-5}$ count per second and channel and there would be no pulse noise of 0.001-0.01 count in IPDA or CCD and thus, highly sensitive Raman spectroscopy of extremely weak light becomes possible." (line 9 on page 4 to line 22 on page 5)

"3.3 Highly sensitive Raman spectroscopic optical system

Figure 1 shows the simple overview of the spectroscopic optical system we used. We used Dilor's model XY as the triple polychromator spectroscope. A difference dispersion type double spectroscope of a pre-stage filter stage has a relatively long focal length, i.e. 50 cm, and the elimination efficiency of lights such as Rayleigh scattered light at the low wave number side is considered to be good. With respect to the post-stage polychromator, a light collection system with the focal length of 50 cm on the incident side and 60 cm on the projection side is used. α is relatively small, i.e. about

6˚, and the double spectroscope is designed to mutually negate the aberration.

As for a detector, IPDA detector (gold model of Dilor) was installed on the straight side, while PS-PMT (model F4146M of ITT) was installed on the lateral side by using a switching reflecting mirror. The performances of the two detectors can be directly compared by switching the mirror. The photo cathode surface of PS-PMT uses multi alkali and has the sensitivity of 300 to 900 nm. The quantum efficiency at 500 nm is 14% and position resolution is 52 μm in full width half maximum (about two channels). The dark obtained at the time of cooling to -30°C by peltier cooler is about nine count per second in the overall photo cathode region having a diameter of 25 mmφ. This value is equivalent to $7\text{-}9\times10^{-6}$ count per second for each pixel with an angle of 25 μm.

The correction of astigmatism was based on the external correction method which introduces an optical system of cylindrical lens in front of the entrance slit. Adjustment was carried out by installing a monitoring CCD camera instead of IPDA, using monochromatic light such as Hg lamp as the light source and observing the image of the grid pattern placed at the sample position. If adjustment of the optical system for correction of astigmatism is carried out in a complete manner, the image of the grid at the entrance slit would be transferred to a clear image at the position of the detector without any change. Its accuracy is not more than 10 μm and can be made much smaller than the pixel size of 25 μm of the detector. In addition, taking into account the chromatic aberration of the lens, the position of the correction lens system should be changed in accordance with the change of the wavelength. However, this value is, in fact, extremely small, falling within the range of 400 to 900 nm, i.e. not bigger than 1 mm. Therefore, normally, the maximum area that can be measured at once by a multichannel detector is 500-1000 cm^{-1}, and thus, the blurring of the image due to the chromatic aberration on the light receiving surface can be ignored. The measurement accuracy is rather defined by the degree of accuracy of matching the light receiving surface and the focal surface of the polychrometer. At this time, with respect to the degree of freedom of movement of PS-PMT, the four axes in total consisting of the back and forth movement for focusing, two kinds of tilt and rotation to accurately adjust in the dispersion direction of the spectrometer are important. Furthermore, PS-PMT is designed to fine-tune the six axes in total in a well-reproducible manner along with the parallel translation in the XY directions to place the effective light receiving surface in an appropriate position." (line 23 on page 5 to line 19 on page 6)

"3.4 Performance evaluation

The method of discussing the noise level by the number of dark counts as stated above is not, in fact, proper. The performance of Raman device is not only and simply decided by the performance of the spectrometer or detector but rather, the ideas for the incidence method for the sample, including the efficiency in the light collection optical system of the light scattered from the sample, are often more important. In addition, since a double spectrometer is much brighter than a triple spectrometer, it is risky to discuss the relative merits and demerits only by the absolute value of the dark counts. As such, we propose a method of evaluating the performance of spectrometers by the measurement of the phonon mode of a monocrystalline silicon. Nowadays, fine silicon wafer can easily be obtained and the peak spectrum of 520 cm^{-1} is unchangeable regardless of the sample. Therefore, an effective performance evaluation of any device may become possible by carrying out the following measurement.

(a) and (b) of Figure 2 show the excitations by 515 nm line of Ar^+ laser and are two-dimensional images of PS-PMT when measurement of peak near 520 cm^{-1} of the silicon (100) wafer is carried out. (b) is a partial enlargement of (a). Laser filter spectrometer is purposely removed to also measure the plasma emission line from Ar^+ laser. In every spectral range, the spread of signals in the Y direction is 3-4 pixels, i.e. not more than 100 μm. This spread is smaller than the sum of 100 μm, which is the width of the incident slit at the time of measurement (equivalent to 125 μm at the position of the detector), and 52 μm, which is the resolution of the detector. (c) of Figure 2 is a Raman spectrum obtained by adding 5 pixels each in the Y direction using the data of (b).

Figures 3 and 4 show the examples in which measurement is carried out by decreasing the intensity of the incidence of the laser to the sample by one digit each while simultaneously increasing the measurement time ten times each, with respect to the peak near 520 cm^{-1} of a single-crystal silicon. In this way, an extremely weak Raman signal can be produced in a reproducible manner and the device including the incident optical system can be evaluated in a quantitative manner. In this experiment, measurement was carried out by using microscopic light collection optical system as the incident optical system and narrowing down the beam diameter to 1 μm on the sample. The data is transferred on the entrance slit with the width of 100 μm by a 100 times objective lens. Figure 3 shows the measurement results using PS-PMT while Figure 4 shows the measurement results using IPDA installed in the straight direction of the polychromator exit for comparison. In the case of PS-PMT, 5 pixels were added in the Y direction as in the case with Figure 2. In the measurement using IPDA, the pulse noise cannot be ignored at the time of excitation of 10 μW, and measurement becomes impossible due to the noise at 1 μW excitation. These correspond to the signal intensity of 0.1 count per second and 0.01 count per second converted by photomultiplier tube, respectively. Meanwhile, in PS-PMT, a good spectrum is obtained in an extremely high signal to noise ratio at the time of 100 nW excitation while a signal is detected in a sufficient SNR at the time of 10 nW excitation. These are equivalent to 0.001 count per second and 0.0001 count per second, respectively. The noise level is estimated to be 4-5×10^{-5} count per second based on the data of 10 nW excitation. This is a noise level of 1/30th to 1/60th in comparison to the case where correction of astigmatism was not carried out. In the case where no correction is carried out, the intensity of the signal and that of the noise is almost equal even in the case of 1 μW excitation and therefore, PS-PMT is not extraordinarily highly sensitive in comparison to the case of using IPDA. This result conforms with the past reports." (line 20 on page 6 to line 14 on page 8)

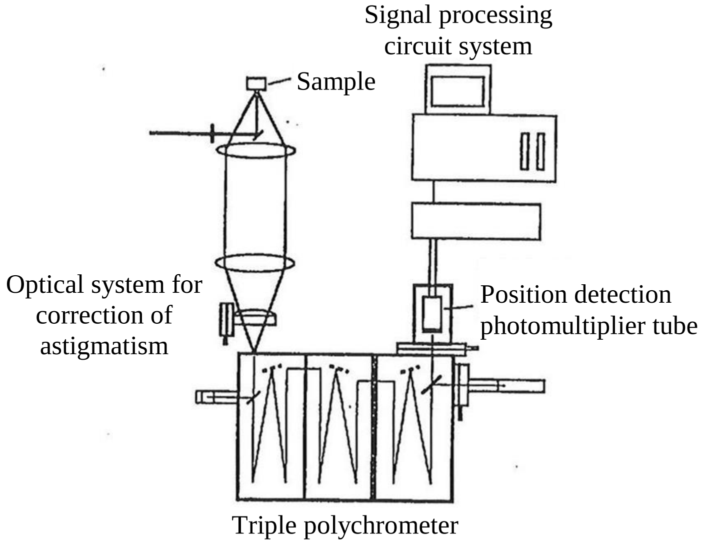

Figure 1 Highly sensitive Raman spectroscopy

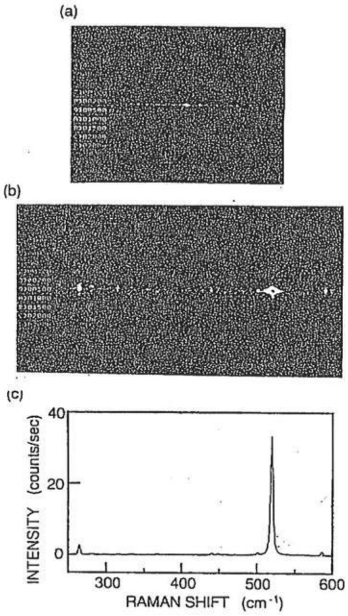

Figure 2 Raman signals of silicon (100) and Ar+ plasma emission by 515 nm excitation. (b) is an enlarged view of (a). (a) is a spectrum obtained by adding 5 pixels.

2. Regarding Issue 1 (whether or not the Appellee's Product (line luminaire mode) falls within the technical scope of Invention 7), Issue 2 (whether or not the Appellee's Product (spot luminaire mode) falls within the technical scope of Invention 7) and Issue 3 (whether or not the Appellee's Products fall within the technical scope of Inventions 8 to 10 and 13)

This court also determines that the Appellee's Product (line luminaire mode) does not fall within the technical scope of Inventions 7 to 10 and 13, while the Appellee's Product (spot luminaire mode) falls within the technical scope of Inventions 7 to 10 and 13.

The reasons are as stated in the Sections 1 to 3 of Part No. 3 in "Facts and reasons" in the judgment in prior instance in addition to the following amendments made to the judgment in prior instance.

(1) The phrase "(including those after the correction in question ("Correction"))" shall be added after the term "description" in lines 15 to 16 on page 103 of the judgment in prior instance.

(2) The part from lines 6 to 11 on page 107 of the judgment in prior instance shall be deleted and the phrase "as shown in the Plaintiff's Reference Drawing 6" shall be added after the phrase "L3 to L6" in line 24 on said page.

(3) The part from lines 11 to 17 on page 109 of the judgment in prior instance shall be modified as follows.

"The appellants allege that the presence or absence of the confocal behavior cannot be decided unless the oblique contribution is also taken into consideration.

However, even if there is a position on the sample in which the oblique contribution of the scattered light will be excluded by both the slit and reading limit of the photodetector, there are also many other positions on the sample for which the abovementioned condition does not apply, and the light from the latter positions will be distributed on the line. As such, as long as the light from the latter positions cannot be distinguished and excluded even if the reading of the photodetector is limited, the resolution of the Z-axis direction will not be improved. The mere possibility of the existence of scattered light that would be excluded by the reading limit of the photodetector is insufficient and a confocal behavior of a second dimension must be generated by the reading limit of the photodetector.

The appellants' allegation mentioned above cannot be accepted."

(4) The phrase "lines 4 to 8 from the bottom" in line 7 on page 100 of the judgment in prior instance shall be modified to "lines 8 to 4 from the bottom" and the phrase "pp. 1169 to 1185" shall be added after the phrase "VOL.35 NO.7" in line 18 on said page.

(5) The phrase "The 'row numbers' show the reading width of the photodetector represented by the row number of the pixels of the photodetector." shall be added at the end of line 4 on page 111 of the judgment in prior instance.

(6) The phrase "pp. 171 to 175" shall be added after the phase "J.Opt.Spc.Am.A" in line 1 on page 114 of the judgment in prior instance while the phrase "page 90 of" shall be added before the phrase "Exhibit Ko 24" in line 5 on said page. The phrase "the diameter of the Airy disc" in line 11 on said page shall be modified to "the diameter of the Airy disc is," the phrase "page 4065 of" shall be added before the phrase "Exhibit Ko 29" in line 15 on said page and the phrase "page 90 of" shall be added before the phrase "Exhibit Ko 24" in line 20 on said page.

(7) The phrase ", G-2(i), G-2(ii) and G-2(iii)" shall be added after the phrase "G-2" in line 13 on page 117 of the judgment in prior instance.

(8) The phrase "Inventions 7 and 10" in line 4 on page 119 of the judgment in prior instance shall be modified to "Invention 7."

3. Regarding Issue 4-5 (whether or not the Inventions lack inventive steps based on Exhibit Otsu 16 as the primary reference)

In light of the case, this court will first examine Issue 4-5.

(1) Identification of Exhibit Otsu 16 Invention

According to the statements made in 1(2) above, Exhibit Otsu 16 Invention can be identified as follows.

[a] A means for irradiating spot light of 515 nm line of Ar^+ laser on a sample to obtain scattered light;
[b] a spectrometer optic system including a triple polychromator spectrometer that disperses said scattered light;
[c] PS-PMT (position-sensitive photomultiplier tube) having each pixel of 25 μm angle;
[d] a means for passing at least one component of said dispersed spectrum to said PS-PMT and bringing the scattered light from the sample into focus in said PS-PMT;
[e] an ultrasensitive Raman spectrometer comprising the constituent features mentioned in [a] to [d] above, wherein;
[f] the scattered light from the spot light irradiated on said sample passes the incident slit with the width of 100 μm (equivalent to 125 μm at the position of the detector) by being narrowed down to the focal point in the width direction of said incident slit through the optical system of the cylindrical lens introduced in front of said incident slit;
[g-1] the spread of signals in the Y direction of said PS-PMT is 3 to 4 pixels, i.e. not more than 100 μm, and light received in the 5 pixel region in the Y direction of said PS-PMT is detected;
[g-2] said region in said PS-PMT in which the scattered light from said sample is brought into focus extends in a direction crossing said incident slit;
[g-2(i)] the scattered light from the spot light irradiated on said sample passes said incident slit by being narrowed down to the focal point in the width direction of the incident slit through the optical system of the cylindrical lens introduced in front of the incident slit in said incident slit and leads to the correction of astigmatism on said PS-PMT that is caused by a spherical mirror-like reflective optical element that is used in the spectrometer using diffraction grating (grating) by the operation of the optical system of said cylindrical lens;
[g-2(ii)] the lens collecting the scattered light from said sample is not used for irradiating spot light on said sample:
[g-2(iii)] said PS-PMT is used as a photodetector;
[h] an ultrasensitive Raman spectrometer characterized by the features mentioned in [f] to [g-2(iii)] above.
(2) Common features between Invention 7 and Exhibit Otsu 16 Invention

When Invention 7 and Exhibit Otsu 16 Invention are compared, the terms "sample," spot light," "scattered light," "spectrometer optic system including a triple polychromator spectrometer that disperses said scattered light," PS-PMT having each pixel of 25 μm angle," "ultrasensitive Raman spectrometer" and "incident slit" of

Exhibit Otsu 16 Invention are equivalent to the terms "sample," "light," "spectrum of the scattered light," "means for analyzing said spectrum," photodetector," "spectroscopic analyzer " and "slit" of Invention 7, respectively.

Since it can be understood that a confocal optical system is formed between the thin film and detector in Exhibit Otsu 16 Invention (lines 34 to 39 on page 2, lines 16 to 17 on page 8 and Figures 1 and 6), in Exhibit Otsu 16 Invention, the "means for bringing the scattered light from said sample into focus on PS-PMT" is a means for bringing the scattered light from a given plane in said sample into focus on PS-PMT while preventing any other light scattered from other planes in the sample from being brought into focus on PS-PMT. Therefore, Exhibit Otsu 16 Invention is comprised of Constituent Feature D which reads "means for bringing the light scattered from a given plane in said sample into focus in a given area of said photodetector and preventing the light scattered from other planes in said sample from being brought into focus on said photodetector."

In addition, in Exhibit Otsu 16 Invention, the scattered light with the spread of 3 to 4 pixels from the sample is detected by being brought into focus on the area of 5 pixels in the Y direction of PS-PMT (structures d, f and g-1) and thus the element contained in Constituent Feature G-1 which reads "the light received in said given area of said photodetector is detected without including the light received outside said given area or separately from this light" is identical with the relevant element of Exhibit Otsu 16 Invention to the extent that the "light received in said given area" "is detected."

As such, Invention 7 and Exhibit Otsu 16 Invention share the following common features.

[A] A means for irradiating light on a sample to obtain a spectrum of scattered light;

[B] a means for analyzing said spectrum;

[C] a photodetector;

[D] a means for passing at least one component of said analyzed spectrum to said photodetector, bringing the light scattered from a given plane in said sample into focus in a given area of said photodetector and preventing the light scattered from other planes in said sample from being brought into focus on said photodetector;

[E] a spectroscopic analyzer comprising the constituent features mentioned in [A] to [D] above; wherein

[F'] said light passes a slit;

[G-1'] the light received in said area of said photodetector is detected;

[H] a spectroscopic analyzer characterized by the features mentioned in [F] and [G-1'] above.

(3) Differences between Invention 7 and Exhibit Otsu 16 Invention

Invention 7 and Exhibit Otsu 16 Invention prima facie differ in the following points (Difference 1 is missing).

A. Difference 2

The point concerning Constituent Feature F that the slit of Invention 7 produces a confocal behavior in the first dimension while the incident slit of Exhibit Otsu 16 Invention has a width of 100 μm and the scattered light is narrowed to the focal point in the width direction through the optical system of the cylindrical lends, but it has not been clearly stated as to whether or not the confocal behavior is produced in the first dimension.

B. Difference 3

The point concerning Constituent Features G-1 and G-2 that the given area of the photodetector of Invention 7 is formed in a manner so that the light received in a given area is detected without including the light received outside the given area or separately from such light and a confocal behavior is produced in the second dimension which crosses the first dimension, while the area of 5 pixels in the Y direction of PS-PMT of Exhibit Otsu 16 Invention extends in a direction crossing the incident slit and is an area in which the scattered light from the sample is brought into focus, but it has not been clearly stated as to whether or not such area detects light without including light received outside this area or separately from such light and whether or not a confocal behavior is produced in the second dimension.

C. Difference 4

The points concerning Constituent Feature G-2(i) that the scattered light from the focal point on a given plane on the sample of Invention 7 passes the slit by being narrowed down to the focal point as a spot in the slit and the light scattered in front or behind said focal point on the given plane on the sample is not focused in the slit, while the scattered light from the sample of Exhibit Otsu 16 Invention is structured to pass the incident slit by being narrowed down to the focal point in the width direction of the incident slit through the optical system of the cylindrical lens introduced in front of the incident slit, and that it has not been clearly stated as to whether or not the light scattered in front of or behind the focal point on the given plane in the sample of Exhibit Otsu 16 Invention is focused in the incident slit.

D. Difference 5

The point concerning Constituent Feature G-2(ii) that, while the same lens is used to irradiate the sample and to collect the scattered light from the sample in Invention 7, such structure cannot be found in Exhibit Otsu 16 Invention.

E. Difference 6

The point concerning Constituent Feature G-2(iii) that, while the photodetector is a charge-coupled device (CCD) in Invention 7, it is PS-PMT in Exhibit Otsu 16 Invention.

(4) Determination on the differences

A. Regarding Difference 2

(A) Examination

On pages 95 to 97 of a book titled "Ketsuzō Kōgaku Nyūmon (Introduction to Image-forming Optics)" (1988) (Exhibit Ko 20), the following statements are made: The following relation is found between the diameter (d) of the "Airy disc," which is an area in which lights concentrate when an image is formed by a lens system, the wave length of light (λ) and numerical aperture "$NA_{image\ side}$," which is an index to define the resolution of the lens on the image side: $d=1.22\lambda/ NA_{image\ side.}$ (formula 4-27 on page 96).

In addition, when the magnification of the objective lens is set to be M, the formula "$NA_{object\ side}=NA_{image\ side}\times M$" is found to be established (formulas 4-28 and 4-29 on page 97), and thus, the following formula is also established: $d=(1.22\times\lambda/ NA_{object\ side})$.

Since the magnification M from the sample to the slit is 100 in Exhibit Otsu 16 Invention (lines 8 to 9 on page 7), when $NA_{object\ side}$ has the maximum value 1 (since $NA_{object\ side}$ does not exceed 1 in the air, the minimum value shall be calculated as the diameter of the Airy disc), the minimum value of the diameter of the Airy disc (d_{min}) on the slit of 515 nm line of Ar^+ laser is 63 μm based on the following formula.

$$d_{min}= (1.22\times\lambda/ NA_{object\ side\ max}) \times M$$
$$= (1.22\times0.515/1) \times100$$
$$=63\ [\mu m]$$

In addition, the wave length of Raman scattered light (Stokes scattered light; the same shall apply hereinafter) (λ') is longer than the wave length of the laser of the source light (λ), and thus the minimum value of the diameter of the Airy disc on the slit formed by the Raman scattered light is larger than the d_{min} mentioned above.

Moreover, the width of the incident slit of Exhibit Otsu 16 Invention is 100 μm (line 36 on page 7), and thus the ratio between the slit width and the diameter of the Airy disc formed in the direction of the slit width by the Raman scattered light will not be larger than 1.59 (100/63).

Publication of Unexamined Patent Application No. 1990-247605 (Exhibit Ko 21) contains a statement which reads "When the area of the detector is expanded to have the same radius as that of the Airy disc or to have a radius two times larger than that of the

Airy disc, […] it can be recognized to have a three-dimensional resolution. This kind of optical system also has a resolution on samples that have a structural change only in the z direction, for which uniform illumination epifluorescence microscopy had no resolution." (lines 6 to 12 in the upper left column on page 5), while Exhibit Ko 22 contains a statement which reads "Microscopes that have a detector that is twice as wide as an Airy disc may resolve the structure of the length direction by a resolution of 2 µm." (lines 49 to 51 in the right column on page 172).

In addition, Exhibit Otsu 29 contains a statement, "$\triangle x$ (FWHM) = $0.51\times\lambda/NA$" (left column on page 4065). Since this NA can be construed to be $NA_{image\ side}$, the aforementioned formula can be construed to be as follows: $\triangle x$ (FWHM) = $(0.51\times\lambda/NA_{image\ side})\times M$.

When this formula and the diameter of the Airy disc expressed by the formula, "$d=(1.22\times\lambda/NA_{image\ side})\times M$," is compared, the diameter of the Airy disc is found to be approximately 2.4 times (1.22/0.51=2.392) the size of Δx (FWHM).

In addition, in Exhibit Ko 24, the detection pinhole with a diameter of 6 in the case where FWHM is set to have the value 1 is shown in the diffraction-limited Airy distribution, and thus it can be found that it is shown that there is a confocal behavior until the size of the pinhole becomes 2.5 times (6/2.4 = 2.5) larger than the diameter of the Airy disc.

As such, with respect to Exhibit Otsu 16 Invention, where the ratio between the slit width and the diameter of the Airy disc is 1.59, it can be found that a confocal behavior is produced in the first dimension (the direction of the slit width) in the incident slit of Exhibit Otsu 16 Invention.

Therefore, Difference 2 is not a substantial difference.

(B) Regarding the allegations of the appellants

a. Regarding the statements and suggestions concerning the confocal behavior

(i) The appellants allege that Exhibit Otsu 16 Invention is not related to a confocal behavior and even if a confocal behavior is produced by the structure of Exhibit Otsu 16 Invention, it has only been produced accidentally, and thus a person ordinarily skilled in the art would not recognize that a confocal behavior is produced in the incident slit of Exhibit Otsu 16 Invention.

However, the fact that the width of the incident slit is 100 µm, the magnification of the objective lens is 100 and the wavelength of the source light is 515 nm is a condition clearly stated in Exhibit Otsu 16. In addition, the fact as to whether or not a confocal behavior is produced will be automatically derived by using a calculation formula based on these conditions, and thus the existence of a confocal behavior is nothing but matters that would be naturally derived from Exhibit Otsu 16 Invention. Moreover, the first-dimension spatial filter comprising a slit itself and the fact that such first-dimension spatial filter comprising a slit produces a confocal behavior were common general technical knowledge prior to the priority date of the Patent. If that is the case, a person ordinarily skilled in the art who read Exhibit Otsu 16 would recognize that a confocal behavior is produced in the incident slit of Exhibit Otsu 16 Invention.

The appellants' allegation mentioned above cannot be accepted.

(ii) The appellants make allegations based on the premise that the incident slit of Exhibit Otsu 16 Invention adjusts the wavelength resolution and such fact is common general technical knowledge while it is not common general technical knowledge that such incident slit produces a confocal behavior. However, such premise cannot be accepted as found and determined in (i) above. The relevant slit would not be denied to produce a confocal behavior just because it adjusts the wavelength resolution and the two elements are compatible.

Therefore, the appellants' allegations mentioned above cannot be accepted.

b. Regarding the action of the cylindrical lens

The appellants allege that a confocal behavior is not produced in the incident slit of Exhibit Otsu 16 Invention by the action of the cylindrical lens of Exhibit Otsu 16 Invention.

In Exhibit Otsu 16 Invention, the scattered light from the sample passes the incident slit after the focal point distance is adjusted in the length direction (Y-axis direction) of the incident slit through the optical system of the cylindrical lens (lens with a cylindrical refracting surface) that is introduced in front of the incident slit for the purpose of correcting astigmatism (a phenomenon where the focal point distances of the orthogonal axes of the lens differ due to the processing accuracy, etc.). This step is construed to resolve the astigmatism in the Y-axis direction on PS-PMT (position sensitive photomultiplier tube) that is caused by the spherical mirror-like reflective optical elements used in a spectrometer using diffraction grating (grating) by the astigmatism in the Y-axis direction which has been intentionally caused by the optical system of the cylindrical lens.

As such, as long as a cylindrical lens exists in front of the incident slit, it means that the Airy disc is in an elliptic form in the direction of the slit length and has not been brought into focus in the direction of the slit length.

However, the cylindrical lens of Exhibit Otsu 16 Invention is not causing astigmatism in the direction of the slit width and the scattered light from the sample is brought into focus in the direction of the slit width. In addition, the short diameter (width direction) of the Airy disc in this case is found not to fall below the numerical value calculated in B. above, and thus it can also be found that a confocal behavior in the first dimension is produced.

Therefore, the appellants' allegations mentioned above cannot be accepted.

c. Regarding the allegations made in the prior instance

The appellants make the following allegations with respect to the fact that the diameter of the Airy disc in (A) above is calculated by using the formula, "d_{min} = (1.22×0.515/1)×100=63 [μm]: [i] λ=0.515 is the wavelength of the source light and thus, the part (1.22×0.515/1) of the abovementioned formula means that the value of "AD1" (diameter of the Airy disc on the position of the sample) in the Attached Appellant's Reference Figures 10-1 and 10-2 of the judgment in prior instance is obtained; and [ii] magnification "M = 100" shows the magnification from the sample to the slit and thus, the part 1.22×0.515/1×100 means that the size of the "bright area 2" (area on the slit corresponding to AD1) is obtained.

However, the abovementioned calculation formula is nothing but one in which the values clearly indicated in Exhibit Otsu 16 have been used as the numerical values to calculate the diameter of a smaller Airy disc in obtaining the diameter of the Airy disc on the slit of the scattered light from the sample; such formula is not used to calculate the diameter of the part corresponding to the numerical values used.

Therefore, the appellant's allegations mentioned above cannot be accepted.

B. Regarding Difference 3

(i) Exhibit Otsu 16 contains a statement which reads "A difference dispersion type double spectroscope of a pre-stage filter stage has a relatively long focal length, i.e. 50 cm, and the elimination efficiency of lights such as Rayleigh scattered light at the low wave number side is considered to be good. With respect to the post-stage polychromator, a light collection system with the focal length of 50 cm on the incident side and 60 cm on the projection side is used" (lines 25 to 28 on page 5). Thus, it can be found that the magnification from the position of the incident slit to the position of the photodetector is 1.2 (60 cm/50 cm) in Exhibit Otsu 16 Invention. Accordingly, the minimum diameter (d_{min}) of the Airy disc on the photodetector of the 515 nm line of Ar^+ laser is 76 μm (63 μm×1.2). In addition, the wavelength (λ') of Raman scattered light is longer than the wavelength (λ) of the source light and thus, the minimum value of the diameter of the Airy disc on the photodetector that is formed by the Raman scattered light will be larger than d_{min}. On the other hand, the reading width by the PS-PMT detector in Exhibit Otsu 16 Invention is 125 μm (25 μm×5 pixels) (line 1 on page 6, the last line on page 6 to line 2 on page 7 and the explanatory text for Figure 2), and thus the ratio between the reading width of the photodetector and the diameter of the Airy disc formed on the photodetector by the Raman scattered light will not be larger than 1.64 (125 μm/76 μm). In addition, in light of (1)B. above, in the case where the reading width of the photodetector is not larger than 2.5 times the size of the Airy disc, it can be said that a confocal behavior is produced.

(ii) Exhibit Otsu 16 also contains the following statements: "The point source on the entrance slit linearly extends in the length direction (hereinafter referred to as the Y direction) of the slit on the exit slit but the focal point is obtained in the dispersion direction (hereinafter referred to as the X direction) of the light" (lines 18 to 20 on page 4); "In the case of single channel detectors or one-dimensional detectors, this kind of spread of the image in the Y direction can all be added up if such spread falls within the range of the spread of the light-receiving surface of the detector, and thus there will be no problem. However, in the case of two-dimensional detectors, this issue is important in examining the sensitivity limit of the device as a whole. In two-dimensional detection, signals are added up in the Y direction and used after being converted into a one-dimensional detector in the X direction." (lines 27 to 31 on page 4); "if the spread of spectra in the Y direction can be drastically narrowed, the noise per channel should be substantially reduced. For example, if the spread in the Y direction is narrowed to not more than 5 pixels, the noise level could be reduced to $5\text{-}10\times10^{-5}$ count per second and channel and there would be no pulse noise of 0.001-0.01 count in IPDA or CCD and thus, highly sensitive Raman spectroscopy of extremely weak light becomes possible." (lines 17 to 22 on page 5); "If adjustment of the optical system for correction of astigmatism is carried out in a complete manner, the image of the grid at the entrance slit would be transferred to a clear image at the position of the detector without any change. Its accuracy is not more than 10 μm and can be made much smaller than the pixel size of 25 μm of the detector." (lines 6 to 9 on page 6); and "In every spectral range, the spread of signals in the Y direction is 3-4 pixels, i.e. not more than 100 μm. This spread is smaller than the sum of 100 μm, which is the width of the incident slit at the time of measurement (equivalent to 125 μm at the position of the detector), and 52 μm, which is the resolution of the detector. (c) of Figure 2 is a Raman spectrum obtained by adding 5 pixels each in the Y direction using the data of (b)." (line 35 on page 6 to line 1 on page 7)

Therefore, it can be said that in Exhibit Otsu 16 Invention, image-forming of the light spreading in the direction of the slit length (Y-axis direction) is conducted at the position of the photodetector by the optical system for correction of astigmatism and only the area of 5 pixels in the Y direction of PS-PMT is added up, and thus "the light received in the given area of the photodetector does not include the light received outside said given area" and "the given area is formed to produce a confocal behavior in the second dimension (Y-axis direction), which crosses the first dimension (X-axis direction)."

(iii) Exhibit Otsu 16 Invention reduces the spread of signals in the Y direction to 3 to 4 pixels by adjusting the optical system for correction of astigmatism. This is a structure to reduce the incorporation of noise by correcting the astigmatism and reducing the number of elements subjected to binning as much as possible due to the following problem: in a spectrometer using diffraction grating (grating), the sensitivity deteriorates if noise is incorporated in large quantities by binning, which is carried out to add up the signals in the Y direction, due to the facts that astigmatism occurs because reflective optical elements must be used and that the spread of the image in the Y direction on the two-dimensional detector becomes large (line 10 on page 4 to line 2 on page 5). The effect of reducing the incorporation of noise by reducing as much as possible the number of elements subjected to binning is directly produced by adjusting the optical system for correction of astigmatism. However, unlike in the case of using pinholes, the PS-PMT used in Exhibit Otsu 16 Invention has a structure wherein the area other than the area of 5 pixels in the Y direction can also receive light, and thus, it can be said that it has the structure wherein light can be detected without including the light received outside the abovementioned area or separately from such light.

(iv) Based on the abovementioned findings, Difference 3 is not a substantial difference.

C. Difference 4

(A) Examination

In addition to the statement found in Exhibit Otsu 31 which reads "A cylindrical lens (which is not illustrated in Figure 1) was used in front of the CCD camera in order to correct the astigmatism caused by the collection of light outside the optical axis by the concave mirror" (lines 31 to 34 in the left column on page 220 of Exhibit Otsu 31 [lines 7 to 9 on page 2 of the translation]), the structure of arranging a cylindrical lens inside a spectrometer is also a well-known matter (line 25 in the right column on page 1054 to line 7 in the left column on page 1055 and Figure 1 of Exhibit Otsu 42, lines 1 to 2 in the upper column in Exhibit Otsu 43, lines 23 to 28 in the left column on page 455 and FIG.1 of Exhibit Otsu 44 and Figure 2 of Exhibit Otsu 45). Moreover, the decision on the specific position to arrange the cylindrical lens in front of or behind the slit should be found to be a matter of design for a person ordinarily skilled in the art and a special effect cannot be found to have been produced by adopting a structure wherein such cylindrical lens is arranged in front of the slit.

Moreover, when the position of the cylindrical lens is moved to a position behind the spectrometer but in front of the photodetector, in Exhibit Otsu 16 Invention, the scattered light from the focal point on the given plane in the sample passes the incident slit by being narrowed down to the focal point as a spot in the incident slit (this is an inevitable change since astigmatism cannot be corrected by the cylindrical lens arranged in front of the photodetector unless the scattered light is narrowed down to the focal point as a spot in the incident slit) and then brought into focus in the photodetector as a result of the astigmatism in the Y-axis direction caused by the spectrometer being resolved by the cylindrical lens.

In addition, it is obvious that, in Exhibit Otsu 16 Invention which has a confocal behavior in the incident slit, if focus is brought on the plane in the sample to be observed, the light scattered in front of or behind the focal point on the given plane in the sample would not have been brought into focus in the incident slit.

As such, a person ordinarily skilled in the art could have easily conceived of Difference 4.

(B) Regarding the appellants' allegations

The appellants allege that there are obstructive factors for a person ordinarily skilled in the art to change the structure to arrange the cylindrical lens of Exhibit Otsu 16 Invention in front of the photodetector instead of the incident slit or there are no aggressive motivations for such person to do so.

However, as stated in (A) above, the decision on the specific position to arrange the cylindrical lens is nothing but a matter of design in Exhibit Otsu 16 Invention. In addition, all of the matters pointed out in detail by the appellants themselves are nothing but matters of design and do not discourage a person ordinarily skilled in the art from changing the position of the incident slit of Exhibit Otsu 16 Invention.

Therefore, the appellants' allegations mentioned above cannot be accepted.

D. Regarding Difference 5

(A) Examination

The figure of Exhibit Otsu 30 (page 302) and that of Exhibit Otsu 30 (page 219) state that the same lens is used to irradiate light on the sample and to collect the scattered light from the sample. It can be found that this was a well-known art prior to the priority date of the Patent. In addition, there is sufficient motivation for a person ordinarily skilled in the art to make the structure simpler, and thus, it can be found that a person ordinarily skilled in the art could have easily conceived of the structure related to Difference 5.

The appellants allege that prior publications contain no statements on the motivation to make the structure simpler. However, this kind of motivation is a universal demand that goes beyond the technical field, and thus it is not required to be suggested in prior publications.

Therefore, the appellants' allegations mentioned above cannot be accepted.

(B) Regarding the appellants' allegations made in the prior instance.

The appellants allege that when the same lens is used to irradiate light on the sample and to collect the scattered light from the sample, there are obstructive factors since the mirror scattered light would be blocked by the mirror to a certain extent no matter what kind of mirror is used, resulting in an obstruction of the achievement of the high-sensitive Raman spectroscopy of extremely weak lights.

However, while Raman spectrometer is generally designed for weak lights, both Raman spectrometers of Exhibit Otsu 30 and Exhibit Otsu 31, wherein the lens is shared for irradiation and collection of light, do not have the structure in which the Raman scattered light penetrates the mirror. Moreover, the arrangement of the mirror in Exhibit Otsu 16 Invention (the structure wherein only part of the Raman scattered light penetrates the mirror) cannot be found to be an indispensable structure to achieve high-sensitive Raman spectroscopy of extremely weak lights. Thus, the decision on whether or not the Raman scattered light penetrates the mirror, how it penetrates or how the mirror should be arranged should be made as appropriate according to the intended use, accuracy and purpose, etc. of the Raman spectrometer.

As such, even if a mirror could obstruct the penetration of Raman scattered light, such fact cannot serve as an obstructive factor to create the structure of Invention 7 related to Difference 5 by applying the abovementioned well-known art to Exhibit Otsu 16 Invention.

Therefore, the appellants' allegations mentioned above cannot be accepted.

E. Regarding Difference 6

In Exhibit Otsu 16 Invention, a PS-PMT detector is used as the photodetector. This is based on the reason that, unlike analog detectors such as CCD, PS-PMT, which is a digital detector, suits the purpose of detecting ultraweak lights since no responses are made in proportion to the energy of the cosmic ray noise but any such noise incorporated is merely counted as 1. (line 12 on page 3 to line 6 on page 4)

As stated above, in Exhibit Otsu 16 Invention, incorporation of noise is reduced by correcting the astigmatism and reducing as much as possible the number of elements subjected to binning (line 10 on page 4 to line 2 on page 5) but the value of the noise is not relatively large in the case of CCD (Table 1). Rather, Exhibit Otsu 16 contains a statement which reads "the selection will differ based on the purpose of the experiment such that CCD detector excels if focus is placed on the absolute value of quantum efficiency or sensitivity of the infrared region is valued." (lines 6 to 8 on page 4).

In light of the abovementioned facts, it can be found that a person ordinarily skilled in the art could have easily conceived of the idea of adopting a CCD detector instead of PS-PMT in Exhibit Otsu 16 Invention.

The appellants allege that the purpose of Exhibit Otsu 16 Invention cannot be achieved unless PS-PMT is used, but such allegation cannot be accepted in light of the abovementioned statements.

F. Summary

As described above, Differences 2 and 3 are not substantial differences, while the structures related to Differences 4, 5 and 6 could have been easily conceived of by a person ordinarily skilled in the art (Difference 1 is missing).

Accordingly, Invention 7 could have been easily conceived of by a person ordinarily skilled in the art based on Exhibit Otsu 16 Invention, and thus lacks inventive steps.

4. Regarding Issue 5 (whether or not the patents granted for Inventions 8 to 10 and 13 should be invalidated in an invalidation trial)

(1) Regarding Invention 8

Since it is obvious that the area of 5 pixels in the Y direction of PS-PMT used in Exhibit Otsu 16 Invention is long and thin (Constituent Feature I does not limit its direction), Invention 8 and Exhibit Otsu 16 Invention share Constituent Feature I.

As stated in 3(4) above, Invention 7 could have been easily conceived of by a person ordinarily skilled in the art based on Exhibit Otsu 16 Invention, and thus Constituent Feature J could also have been easily conceived of by a person ordinarily skilled in the art.

As such, Invention 8 could have been easily conceived of by a person ordinarily skilled in the art based on Exhibit Otsu 16 Invention, and thus lacks inventive steps.

(2) Regarding Invention 9

Since the long and thin area of 5 pixels of PS-PMT used in Exhibit Otsu 16 Invention extends in a direction that crosses the incident slit (Constituent Feature g-2), Invention 9 and Exhibit Otsu 16 Invention share Constituent Feature K.

As stated in 3(4) and (1) above, Inventions 7 and 8 could have been easily conceived of by a person ordinarily skilled in the art based on Exhibit Otsu 16 Invention and thus, Constituent Feature L could also have been easily conceived of by a person ordinarily skilled in the art.

As such, Invention 9 could have been easily conceived of by a person ordinarily skilled in the art based on Exhibit Otsu 16 Invention, and thus lacks inventive steps.

(3) Regarding Invention 10

Since PS-PMT used in Exhibit Otsu 16 Invention obviously has an array of pixels, Invention 10 and Exhibit Otsu 16 Invention share Constituent Feature M.

As stated in 3(4) and (1) and (2) above, Inventions 7, 8 and 9 could have been easily conceived of by a person ordinarily skilled in the art based on Exhibit Otsu 16 Invention, and thus Constituent Feature N could also have been easily conceived of by a person ordinarily skilled in the art.

As such, Invention 10 could have been easily conceived of by a person ordinarily skilled in the art based on Exhibit Otsu 16 Invention, and thus lacks inventive steps.

(4) Regarding Invention 13

Exhibit Otsu 16 Invention is an ultrasensitive Raman spectrometer (Constituent Feature h) and thus, Invention 13 and Exhibit Otsu 16 Invention share Constituent Feature O.

As stated in 3(4) and (1), (2) and (3) above, Inventions 7, 8, 9 and 10 could have been easily conceived of by a person ordinarily skilled in the art based on Exhibit Otsu 16 Invention and thus Constituent Feature P (limited to the part related to Inventions 7 to 10) could also have been easily conceived of by a person ordinarily skilled in the art.

As such, Invention 13 (limited to the part that cites Inventions 7 to 10) could have been easily conceived of by a person ordinarily skilled in the art based on Exhibit Otsu 16 Invention, and thus lacks inventive steps.

(5) Summary

Inventions 8 to 10 and 13 (limited to the part that cites Inventions 7 to 10) could have been easily conceived of by a person ordinarily skilled in the art, and thus all of them lack inventive steps.

5. Regarding the re-defense for a correction

(1) Regarding the argument of allegations or evidence after its time without prejudice

The appellee alleges that the allegation of re-defense of a new correction made by the appellants as mentioned in (2) below is an allegation or evidence submitted after the time for doing so. However, such allegation made by the appellants can be determined based on the evidence which has already been submitted, and thus such allegation cannot be found to delay the conclusion of the litigation.

Therefore, the allegation of re-defense of a new correction shall not be dismissed as an allegation or evidence submitted after the time for doing so.

(2) Regarding the necessity to request a correction trial or a correction

A. The appellants' allegation

The appellants allege a re-defense of a correction with respect to the defense under

Article 104-3 of the Patent Act (hereinafter referred to as the "defense of invalidity") that has been made with respect to the invalidation of the Patent recognized in the judgment in prior instance for lack of inventive steps based on Exhibit Otsu 16 Invention (hereinafter such re-defense shall be referred to as the "re-defense of a new correction") to make the following corrections: [i] to correct the element in Claim 7 after the Correction which reads "a spectroscopic analyzer which is characterized in that said photodetector is a charge-coupled device" into "a spectroscopic analyzer which is characterized in that said photodetector is a charge-coupled device and said spectroscopic analyzer is a confocal spectroscopic analyzer used to analyze the focal point on said given plane in said sample by defining said plane as the first plane in the sample and to analyze the focal point on said given plane in said sample by defining said plane as the second plane in the sample" (the same correction shall be made to Claims 8 to 13 that cite the statements in Claim 7); and [ii] to correct the statements which reads "provides a spectroscopic analyzer which is characterized in that said photodetector is a charge-coupled device" in line 17 on page 5 to line 2 on page 6 of the corrected description into "provides a spectroscopic analyzer which is characterized in that said photodetector is a charge-coupled device and said spectroscopic analyzer is a confocal spectroscopic analyzer used to analyze the focal point on said given plane in said sample by defining said plane as the first plane in the sample and to analyze the focal point on said given plane in said sample by defining said plane as the second plane in the sample."

The appellants then allege as the re-defense of a correction that the grounds for invalidation recognized in the judgment in prior instance will be resolved by such corrections and the Appellee's Products satisfy the constituent features of the Inventions while alleging that it is unnecessary to file a request for a correction trial or a correction (hereinafter referred to as the "request for a correction, etc.") in alleging a re-defense of a correction and, if a re-defense of a correction would not be allowed in the case where the party to the litigation (patentee) cannot file a request for a correction, etc. though he/she wishes to do so, the rights of such party would unreasonably be impaired. Thus, this court will examine this point in the following parts.

B. Regarding the necessity to file a request for a correction, etc.

In a patent infringement lawsuit, even in the case where the restriction on the exercise of rights is alleged based on Article 104-3 of the Patent Act as the defendant's defense and such reasons for invalidation are recognized, if it is undoubtedly anticipated that such reasons for invalidation can be voided by a request for a correction, etc., the relevant patent cannot be "recognized as one that should be invalidated by an invalidation trial" and thus, the defense of invalidity should be denied. In addition, in order to undoubtedly anticipate that the reasons for invalidation will be avoided, it is important for the statements in the scope of claims after the correction, which are subject to the allegation or evidence to be made in the lawsuit between the parties, to be unambiguously clarified as a premise, and thus it is construed necessary to actually file a lawful request for a correction, etc., in principle, at the time of alleging a re-defense of a correction.

If it is unnecessary to file a request for a correction, etc. in submitting a defense of a correction, the following negative effects are expected to occur: [i] The relevant correction shall be relative and specific only for the relevant lawsuit, which could result in the possibility of changing the contents of the correction for each defendant or each alleged infringing product of the lawsuit, complication of legal relationships and damage to the predictability of the parties; and [ii] if a re-defense to the defense of invalidity is allowed without conducting a correction trial, etc., the patent right will continue existing without any changes to the statements in the scope of claims prior to the correction in relation to a third party due to the lack of a systematic guarantee for the contents of the correction alleged in the litigation that is to be actually carried out in the future, and the patentee will be able to exercise his/her rights by having the parts containing grounds for invalidation included in the scope of claims while enjoying the judicial benefits obtained by excluding the parts containing grounds for invalidation.

Therefore, a lawful request for a correction, etc. must actually be filed in a lawsuit at the time of alleging a re-defense of a correction, and an allegation of re-defense of a correction by a party who can file a request for a correction, etc. but does not do so should not be allowed. The reason why a request for a correction, etc. must actually be filed in alleging a re-defense of a correction while it is construed that a defense of invalidity can be alleged without actually filing a request for an invalidation trial is based on the difference that originates in the fact that a defense of invalidity must be alleged based on evidence, etc. with objective grounds while a re-defense of a correction can be alleged by a patentee within the optional range if predetermined conditions are met; there is no unreasonable discrimination in the treatment of the two procedures.

However, if there are legal difficulties for a patentee to file a request for a correction, etc. although he/she intends to do so, the necessity to file a request for a correction, etc. should be decided by individually taking into consideration such circumstances from the viewpoint of fairness. The reasons are as follows.

C. Exceptional background circumstances

Under the Patent Act prior to the amendment by Act No. 63 of 2011 (hereinafter referred to as the "Former Patent Act"), when a patent invalidation trial is pending with the JPO, a request for a correction trial could be filed only within 90 days from the date on which an action seeking rescission of the trial decision is filed with respect to the invalidation trial (Article 126, paragraph (2) of the Former Patent Act) and the court could remand the case to the administrative judge when it found it appropriate to have the JPO conduct proceedings for the patent subject to the correction in an invalidation trial (Article 181, paragraph (2) of the Former Patent Act). These provisions had the advantages of allowing the court to flexibly remand cases to the JPO while allowing a patentee to make corrections to avoid the reasons for invalidation within a reasonable period of time based on the determination presented in the trial decision and the JPO to seek protection of patented inventions by determining again the validity of the patent after the correction. On the other hand, they also had the problem of delaying the proceedings or the trial decision to become final and binding if a patentee repeatedly filed requests for correction trials. Therefore, under the Patent Act amended by Act No. 63 of 2011 (hereinafter referred to as the "New Patent Act"), it was prohibited to file a request for a correction trial after an action seeking rescission of the trial decision has been filed (Article 126, paragraph (2) of the New Patent Act, deletion of Article 181, paragraph (2) of the Former Patent Act), a system of an advance notice of a trial decision in the procedures for invalidation trial was introduced (Article 164-2, paragraph (2) of the New Patent Act) and a patentee came to be allowed to file a request for a correction based on the trial decision notified in advance which found reasonable grounds for a request for an invalidation trial (Article 134-2, paragraph (1) and Article 164-2, paragraph (2) of the New Patent Act).

Therefore, under the New Patent Act, it has become difficult for a patentee to file a request for a correction, etc. when an action seeking rescission of a trial decision has been filed with the court and such action is pending due to the swift and effective operations of proceedings.

Even under the Former Patent Act, in an exceptional case where, for example, the defendant is allowed to allege a defense of invalidity in a patent infringement lawsuit based on new grounds for invalidation after he/she has alleged a defense of invalidity in said lawsuit and also filed a request for invalidation with the same contents but he/she does not file a request for an invalidation trial with respect to such grounds for invalidation, there would be no choice for the patentee to file a request for a correction, etc. in response to new grounds for invalidation within a period in which a request for a correction cannot be filed with respect to the existing request for an invalidation trial (this shall also apply under the New Patent Act).

Taking into consideration the background to the amendment of the law and exceptional circumstances mentioned above, it should be construed that when it is legally difficult for a patentee to file a request for a correction, etc., such circumstances should be individually taken into consideration from the viewpoint of fairness and an allegation of re-defense of a correction, which does not fulfill the requirement that a lawful request for a correction, etc. has been filed, should be allowed if special circumstances that do not require such request having been filed are found.

Therefore, this court will specifically examine the special circumstances mentioned above.

D. Specific circumstances of this case

a. On November 16, 2010, the appellants filed this action. The appellee alleged a defense of invalidity including the lack of inventive steps based on Exhibit Otsu 16 Invention on the date of the sixth preparatory proceedings of the prior instance (December 22, 2011) and the appellants made counter-arguments on the same day. Later, Appellant Renishaw filed the request for a correction trial in question (the "Request for a Correction Trial") on July 3, 2012, and the JPO rendered a trial decision to allow the Correction on September 11 of the same year. The appellants alleged the re-defense of a correction based on the Correction in the prior instance on September 18, 2012.

The appellee filed a request for an invalidation trial (Invalidation Trial No. 2012-800183) on November 5, 2012, but the JPO rendered a trial decision to dismiss the request for invalidation on July 2, 2013, and thus the appellee filed an action seeking rescission of the trial decision (Intellectual Property High Court 2013 (Gyo-Ke) 10227) in response. Later, the judgment in prior instance, in which the court allowed the defense of invalidity alleged on the grounds of lack of inventive steps based on Exhibit Otsu 16 Invention, was rendered on August 30, 2013, and the appellants' claims were dismissed.

In response to this, the appellants alleged the re-defense of a new correction as the allegation in this instance while filing an appeal.

b. In light of the abovementioned background, as long as the abovementioned action seeking rescission of the trial decision is pending with the Intellectual Property High Court at the present moment, Appellant Renishaw, which is a patentee, cannot file a request for a correction trial or a correction (Article 126, paragraph (2) of the Patent Act; See Article 134-2, paragraph (1) of said Act).

However, the reasons for invalidation alleged on the grounds of lack of inventive steps based on Exhibit Otsu 16 Invention, which the appellants intend to resolve by alleging a re-defense of a new correction in this instance, had been alleged on December 22, 2011, when the prior instance was already pending. In addition, Appellant Renishaw later filed the Request for a Correction Trial on July 3, 2012, and received a trial decision allowing such request. Moreover, the appellee filed a request for an invalidation trial on the grounds of lack of inventive steps based on Exhibit Otsu 16 Invention as the reasons for invalidation on November 5, 2012, and thus, Appellant Renishaw could have filed a request for a correction in such trial proceedings. Furthermore, examining the contents of the correction alleged in the re-defense of a new correction, part of the functions normally held by a confocal spectroscopic analyzer, which is the invention subject to this case, is only stated in a further specific manner and there are no circumstances suggesting that it was difficult for Appellant Renishaw to make such correction until the appeal instance was commenced.

More specifically, it can be found that although Appellant Renishaw could have filed a request for a correction or a correction trial at the time of alleging the re-defense of a correction against the reasons for invalidation alleged based on exhibit Otsu 16 Invention, it did not make use of such opportunity and instead alleged the re-defense of a new correction in the appeal instance.

As such, even if Appellant Renishaw is unable to file a request for a correction trial or a correction at this point of time, it must be said that such situation is caused by its own responsibility and there are no special circumstances to find that it is unnecessary to fulfill the requirement of filing a lawful request for a correction, etc. at the time of alleging a re-defense of a correction.

Accordingly, without the need to examine other points, the appellants' allegation of re-defense of a new correction is inappropriate.

6. Overall summary

As described above, without the need to make determination on other points, the appellants cannot exercise the patent rights granted for Inventions 7 to 10 and 13 against the appellee (Article 104-3, paragraph (1) of the Patent Act).

No. 5 Conclusion

Therefore, without the need to make determinations on other points, all of the appellants' claims made in this action lack legal basis.

Accordingly, the judgment in prior instance which dismissed all of the claims made by the appellants is appropriate and the Appeals lack legal basis and thus the judgment shall be rendered in the form of the main text.

Intellectual Property High Court, Second Division

Presiding judge: SHIMIZU Misao

Judge: NAKAMURA Kyo

Judge: NAKABU Yuki