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**Technical terms for analytical chemistry
(General part)**

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by the Japan Society for Analytical Chemistry (JSAC)/the Japanese Standards Association (JSA), with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

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Technical terms for analytical chemistry (General part)

1 Scope This Japanese Industrial Standard determines the basic terms out of main terms to be used for analytical chemistry and specifies their definitions.

2 Classification

- a) **General and common**
- b) **Sampling**
- c) **Analytical method**
 - 1) **Sample amount**
 - 2) **Use**
 - 3) **Principle**
 - 4) **Titration**
- d) **Phenomena/Characteristics**
 - 1) **Reaction**
 - 2) **Phenomena**
 - 3) **Characteristics**
- e) **Reagents**
 - 1) **Reference material**
 - 2) **Indicator**
 - 3) **General reagents**
- f) **Apparatus/Instrument**
- g) **Operation**
- h) **Reliability of measurement**
- i) **Biotechnology and others**

3 Terms and definitions For the purposes of this Standard, the following terms and definitions apply.

Remarks 1 When two or more terms are written, the priority is followed to the order.

- 2 Unless especially specified, the terms are used in the range of classification mentioned above respectively, however, for the terms which are possible to misunderstand, the field to be used is indicated in parentheses after terms.
- 3 The abbreviations of terms are indicated in the column of English equivalent.
- 4 The English equivalent (informative) of which not less than two words are mentioned together with semicolon (;) placed between, are synonyms respectively.

3.1 General and common

Number	Term (Japanese character)	Reading	Definition	English equivalent (informative)
1001	受け容積	UKE-YÔSEKI	The volume of liquid filled up to the indicator of a volumeter such as one-mark volumetric flask or volumetric pipette so graduated that becomes the marked volume.	content volume
1002	SN 比	ESU-ENU-HI	a) The strength ratio of signal (response value) S based on the analysis purpose to the signal (usually noise) N based on another main cause. When “Background” is employed instead of N, it is called SB ratio. b) The scale to express the detecting power for measurement. In the repeating measurement it is expressed by η to be given according to the following formula. $\eta = \frac{\sigma_s^2}{\sigma_e^2}$ σ_s : standard deviation between samples σ_e : standard deviation of measuring error	signal-to-noise ratio; SN ratio signal-to-back-ground ratio; SB ratio
1003	応答	ÔTÔ	A response of the output signal of analyzer to input signal.	response
1004	温水	ONSUI	Water at 40 °C to 60 °C (see JIS K 0050).	warm water
1005	回収率	KAISYÛRITU	The ratio or the percentage of amount (B) of products taken out from the sample to the amount (A) of products existed in the sample or added to the sample.	recovery
1006	化学種 (かがくしゅ)	KAGAKU-SYU	Structural or organizational form of elements or compounds composing of substance.	chemical species
1007	化学物質等安全 データシート, MSDS	KAGAKUBUSS- ITU-TÔ ANZEN DÊTASÎTO, EMU-ESU-DÊ- ESU	An information related to safety, health and environment of one kind of chemical products which the supplier presents to the user for the safe use of chemical products, etc. (see JIS Z 7250).	safety data sheet for chemical products ; material safety data sheet ; MSDS
1008	化学分析	KAGAKU-BUNSEKI	The operation and technique to make clear the chemical species of products or to determine it. Remarks : It is the method to affirm the chemical species regardless chemical method or physical method, etc.	chemical analysis

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
1009	加成性	KASEISEI	A property in which the numerical value expressing the property of products composed of multi-components is expressed by the sum of each component.	additivity
1010	空試験	KARA-SIKEN	In general, the test without using the sample by the similar operation to that when the sample is used.	blank test
1011	空試験値	KARA-SIKENTI	The value obtained by the blank test.	blank value
1012	感度	KANDO	a) An analytical method expressed by minimum limit of detection or function of equipment in the measurement of certain quantity. b) Performance of analytical method expressed by the tendency of working curve.	sensitivity, sensitiveness
1013	含有率	GANYÛRITU	A rate of a certain component contained to a certain product.	concentration
1014	含量	GANRYÔ	The amount of a component contained in a certain product.	content
1015	グラム式量	GURAMU-SIKIRYÔ	The amount of chemical formula weight expressed by gram.	gram formula mass
1016	検査	KENSA	The examination by comparing with a standard or judging reference relating to the composition, performance, and other required matters for the purpose to judge good or not good or acceptable or not for individual product or lot.	inspection
1017	検出	KENSYUTU	Coming up with specific property or substances.	detection
1018	検出下限	KENSYUTU-KAGEN	The minimum amount (value) capable of detecting.	limit of detection ; LOD ; detection limit ; limit of identification
1019	検定 (分析機器の)	KENTEI (BUNSEKI-KIKI NO)	An operation that the Minister of Economy, Trade, and Industry, Japan Electric Meters Inspection Corporation or other designated inspection organization tests and judges whether the measured value of analytical equipment specified by the law is within the margin of error.	verification
1020	検量線	KENRYÔ-SEN	The line having expressed the relation between the specific property, amount, concentration, etc. of products and the measured value.	calibration curve ; working curve

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
1021	校正 (計測器の)	KÔSEI (KEISOKUKI NO)	A series of operations to establish the relation between the indicated value of standard substances and measured value thereof under a specific condition. Information : VIM (International Vocabulary of Basic and General Terms in Metrology)	calibration
1022	恒量 (こうりょう)	KÔRYÔ	A condition in which when the operation such as heating, cooling as it is, weighing, etc. of products is repeated under the same condition, the weighed difference before and after the operation has become under the specified value.	constant weight
1023	コンジェナー	KONZYENÂ	The generic term of a certain compound group similar in molecular structure. The range is wider than homologue, for example, the compound combined with the homologue of chlorine number of PCB is called as PCB congener.	congener
1024	差数法	SASÛ-HÔ	The method to express the content amount of objective component by the value subtracted by the determined amount value (percentage) of components other than the objective component in the sample from 100.	by-difference method
1025	サロゲート	SAROGÊTO	A products being the same or similar to the objective component in chemical structure which is added for the purpose of correcting yield, confirming recovery, etc. at the stage of pretreatment and analytical operation of sample. It is also called a surrogate products. For example, ¹³ C-polychlorodibenzofuran in the analysis of polychlorodibenzofuran.	surrogate
1026	式量	SIKIRYÔ	The total sum of atomic weight of each atom contained in chemical formula.	formula weight
1027	視差	SISA	At the time of reading out of scale, the error caused by the direction of line of sight.	parallax

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
1028	システム適合性 試験	SISUTEMU- TEKIGÔSEI- SIKEN	A synthetic test in which the degree of adaptability to object for a certain analytical system (reagents, apparatus, instruments, etc.) is confirmed corresponding to the presence condition or characteristics of the analytical object.	test of an analytical system on the adaptability for the object
1029	室温	SITUON	A temperature at testing place. 5 °C to 35 °C (see JIS K 0050).	room temperature
1030	質量校正	SITURYÔ- KÔSEI	An operation in which the scale of ratio of mass to electric charge is calibrated by the products to be standard in mass spectrometry. Example : reference material for mass calibration (see JIS K 0311)	mass calibration
1031	質量分率	SITURYÔ- BUNRITU	A ratio of a certain component to the whole expressed by using mass unit. It is expressed as 0.123 of mass fraction, 12.3 % of mass fraction, etc.	mass fraction
1032	質量モル濃度	SITURYÔ- MORU-NÔDO	The amount of products of solute unit particles contained in the solvent of 1 kg. The unit particles are to be described clearly.	molality
1033	収率	SYÛRITU	The rate of yield to the theoretical yield.	yield
1034	収量	SYÛRYÔ	The amount of objective components obtained by the result of chemical operation.	yield
1035	純度	ZYUNDO	The rate at which the specific component occupies in products. This term is often used for high content rate.	purity
1036	常圧	ZYÔATU	It means the standard atmospheric pressure and is 101. 325 kPa.	normal pressure
1037	常温	ZYÔON	It means 15 °C to 25 °C (see JIS K 0050).	ordinary temperature
1038	相対感度	SÔTAI-KANDO	A ratio of detection sensitivity of the products for test to that of reference material per unit concentration.	relative sensitivity
1039	測定	SOKUTEI	The operation to express a certain property or amount by using instruments expressed by mainly the numerical value.	measurement
1040	測定値	SOKUTEI-TI	The value obtained by measurement.	measured value

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
1041	測定範囲 (分析計の)	SOKUTEI-HAN'I (BUNSEKI-KEI NO)	A measurand range in which the error of value obtained by analyzer falls in the specified limit.	measuring range ; working range
1042	測定量	SOKUTEI-RYÔ	An attribute to be the object for measurement. For example, a quantity expressed by L, kg, etc. Remarks : The measurand may be a measured quantity or a quantity to be measured depending on case. See JIS Z 8103.	measurand
1043	体積分率	TAISEKI-BUN-RITU	A ratio of a certain component to the whole expressed by volume unit. It is expressed as 0.123 of volume fraction or 12.3 % of volume fraction.	volume fraction
1044	出し容積	DASI-YÔSEKI	A volume when the liquid filled up to the scale of marked line marked on the volumeter such as volumetric flask, volumetric pipette is discharged.	delivery volume
1045	直線領域	TYOKUSEN-RYÔIKI	A range in which the linearity is obtained between input signal and output signal.	linear range
1046	定性	TEISEI	Operation declares chemical species.	qualification, qualitation
1047	定量	TEIRYÔ	Operation declares quantity of chemical species.	determination : quantitation
1048	定量下限	TEIRYÔ-KAGEN	In a certain analysis method, the minimum quantity (value) or concentration of analyte capable of being determined.	minimum limit of determination ; minimum limit of quantitation ; quantitation limit ; limit of quantitation (LOQ)
1049	定量上限	TEIRYÔ-ZYÔGEN	In a certain analysis method, the maximum quantity (value) or concentration of analyte capable of being determined.	maximum limit of determination ; maximum limit of quantitation
1050	定量範囲	TEIRYÔ-HAN'I	The range from the maximum limit of determination to the minimum limit of determination.	dynamic range
1051	適用範囲 (分析方法の)	TEKIYÔ-HAN'I (BUNSEKI-HÔHÔ NO)	A range in which the specified matter in analytical method is applied.	scope
1052	同定	DÔTEI	Confirming that it is the same as the specific products according to comparison test of unknown products.	identification

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
1053	毒性等 (当) 量	DOKUSEI- TÔRYÔ	Product of content and TEF.	toxicity equivalent quantity ; TEQ
1054	毒性等 (当) 係数	DOKUSEI- TÔKA-KEISÛ	A ratio of the strength of toxicity of a certain component to that of the component to be the standard, which are evaluated according to the same method in the group of a certain toxic component.	toxicity equivalent factor ; TEF
1055	熱水	NESSUI	Water at 60 °C or more (see JIS K 0050).	hot water
1056	濃度	NÔDO	The numerical value to express the content amount of analyte in solution, solid solution, mixed gas, dispersion system, etc. There are various type expression methods.	concentration
1057	標準温度 (体積計の)	HYÔZYUN- ONDO (TAISEKI-KEI NO)	The temperature to be standard when indicating the volume of volumeter. Information : 20 °C in measuring method.	normal temperature ; standard temperature
1058	標準状態 (気体の)	HYÔZYUN- ZYÔTAI (KITAI NO)	The condition at the atmospheric pressure of 101. 325 kPa, and air temperature at 0 °C. Abbreviated as NTP (Normal Temperature and Pressure).	normal state
1059	不純物	HUZYUNBUTU	Unnecessary products for main products contained in a certain products.	impurity
1060	物質質量	BUSSITU-RYÔ	One of physical amount. The symbol is mol. It is proportional to the number of particles indicated clearly as the element constituting the products. The proportional constant is equal to all products, and is called Avogadro constant. Remarks : It is one of the basic units.	amount of products
1061	分析種, 分析対象成分	BUNSEKI-SYU, BUNSEKI-TAIS YÔ-SEIBUN	A componet for test in analytical sample or sample solution.	analyte
1062	分析値	BUNSEKI-TI	The numerical quantity (value) obtained as the result of chemical analysis.	analytical value
1063	補償法	HOSYÔ-HÔ	When measuring a certain physical amount, the value of property to indicate the amount is extinguished by the negative known amount thereto, and on the basis of this, the method to measure the original physical amount.	compensating method

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
1064	補正	HOSEI	In order to obtain the value nearer to the true value, the operation of addition, subtraction, multiplication, and division of a certain value to the analyzed or calculated value.	correction
1065	前処理	MAE-SHORI	The treatment of sample before analysis or measurement in order to make easy the analysis or measurement.	pretreatment
1066	マトリックス	MATORIKKUSU	The main coexisting components other than target components.	matrix
1067	モル	MORU	Unit of amount of products. The symbol is mol. The products amount of system containing the elementary entities of the same number as the carbon atoms contained in carbon 12 of 0.012 kg is taken as 1 mol. At using the unit of mol, the elementary entities are to be indicated clearly.	mole
1068	モル濃度	MORU-NÔDO	The number of moles of constituting element contained in solution 1L. The elementary entities is to be described clearly. For example, 1 specified sulphuric acid solution is expressed as 1/2 mol/L solution of sulphuric acid.	molarity
1069	モル分率	MORU-BUNRITU	A value of the mol number of a certain component divided by the total sum of mol number of whole components. One of the expression method of concentration of each component in multi components system. The sum of mole fraction of whole components becomes one.	mole fraction
1070	要素粒子	YÔSO-RYÛSI	The particle such as atom, molecule and their ion, radical, electron, photon or these specific groups.	elementary entities
1071	溶液	YÔEKI	The uniform liquid phase composed of two or more class products.	solution
1072	溶解	YÔKAI	The fact that uniform phase is generated by dissolving of other products into the liquid.	dissolution
1073	溶質	YÔSITU	The chemical species other than solvent in solution.	solute
1074	溶媒	YÔBAI	The liquid to be used for dissolving products in solution.	solvent

3.2 Sampling

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
2001	異物	IBUTU	Mixed products contained in sample which is not contained in the sample usually or a completely different products from the sample.	foreign matter
2002	インクリメント	INKURIMENTO	A quantity of sample which is taken from lot or consignment by a sampler in one action at one time.	increment
2003	大口試料	ÔGUTI-SIRYÔ	A sample collection made from many increments taken from consignment or lot, or the whole of sample collection made from several increments.	gross sample
2004	系統 サンプリング	KEITÔ- SANPURINGU	An operation in which increment is taken from lot or consignment at a definite interval quantitatively, hourly, or spatially.	systematic sam- pling
2005	小口試料	KOGUTI-SIRYÔ	A sample collection made from several increments.	—
2006	コンサインメント	KONSAINMEN- TO	The collection of specific mat- ters to be delivered once. It may be constituted by one or several lots or be a part of a lot.	consignment
2007	コンポジット 試料	KONPOZITTO- SIRYÔ	When the population is com- posed of several lots, the sam- ple for measurement obtained by mixing the laboratory sam- ples obtained from respective lots so as to be proportional to the amount of lot.	composite sam- ple
2008	試験室試料	SIKENSITU- SIRYÔ	The sample fed to the laboratory where the final step of sample preparation is completed.	laboratory sam- ple
2009	縮分	SYUKUBUN	An operation in which one sample is divided to some sam- ples of the same chemical and physical characteristics.	sample division
2010	試料	SIRYÔ	The products taken from the population for the purpose to examine the characteristics.	sample
2011	試料採取, サンプリング	SIRYÔ-SAISYU, SANPURINGU	Taking of sample for the pur- pose of analysis and test from the population.	sampling
2012	試料採取単位, サンプリング 単位	SIRYÔ-SAISYU- TAN'I, SANPURINGU TAN'I	The amount to be taken as sample. Remarks : In the case of mix- ture of powder and lump, it is called also increment or unit sample.	sampling unit ; sample unit

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
2013	試料調製	SIRYÔ-TYÔSEI	a) All of operation to be re- quired for obtaining the laboratory sample from a gross sample, for example, the operation such as grinding, mixing, sample division is included. b) An operation of chemical pretreatment in sample. c) An operation in which the objective part for measure- ment is selected from sample.	sample preparation
2014	試料溶液	SIRYÔ-YÔEKI	a) That which sample is made solution. b) A solution which is taken for analysis.	sample solution
2015	層別サンプリング, 層別ランダムサンプリング	SÔBETU- SANPURINGU, SÔBETU- RANDAMU- SANPURINGU	An operation in which lot or consignment is divided to some sub-lot (or layer) and incre- ment is taken from each sub-lot at random.	stratified sampling
2016	測定試料	SOKUTEI- SIRYÔ	The sample to be used for a one-time measurement, ex- tracted from test sample or laboratory sample. It is also called an analysis sample.	test portion
2017	測定用試料	SOKUTEIYÔ- SIRYÔ	The sample with some pre- treatment relating to labora- tory sample for the purpose to perform measurement. It is also called a sample for analy- sis.	test sample
2018	二段 サンプリング	NIDAN- SANPURINGU	An operation in which lot is divided to some parts (primary sampling unit), and first, some parts from them are selected as the first stage at random. Next, some increments (secondary sampling unit) from the se- lected parts are taken respec- tively as the second stage at random. The sampling ranging from two or more stages to many stages is called multi-stage sampling.	two-stage sampling
2019	ふるい分け	HURUI-WAKE	An operation in which the par- ticle-shaped sample is sepa- rated to two or more particle groups by using one or more sieves.	sieving
2020	分画	BUNKAKU	The individual part when the sample is separated into two or more parts, based on a certain property of sample.	fraction

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
2021	分析試料	BUNSEKI- SIRYÔ	a) A sample which is weighed out from the sample for analysis in order to carry out analysis. b) A sample which is prepared to the condition for measurement. It is also called the test portion	analytical sample
2022	偏析	HENSEKI	In the sample, its property or composition is different partially, or its state.	segregation
2023	母集団	BOSYÛDAN	The batch of all products having characteristics to be the object of research.	population
2024	保存処理 (試料の)	HOZON-SYORI (SIRYÔ NO)	The simple treating operation to be applied for preventing the change in property of sample, and change of composition and characteristics during transport, storing, etc. when the sample for analysis is taken in the field.	—
2025	予備処理 (試料の)	YOBI-SYORI (SIRYÔ NO)	A certain operation to be performed before measuring in order to obtain the test sample from laboratory sample. For example, in the case of mixture of powders and lumps, it means the operation further to micro-crush, dry, balance to atmosphere, etc. a part of laboratory sample.	pretreatment
2026	ランダムサンプリング	RANDAMU- SANPURINGU	An operation in which the increment is taken so as to put into sample from the entity composing lot in the same probability, for example, by using random numbers.	random sampling ; grain size
2027	粒径	RYÛKEI	The size of grain expressed by numerical value.	grain size ; particle size
2028	ロット	ROTTÔ	The parts to be considered that the properties are the same in the population.	lot ; batch

3.3 Analytical method

3.3.1 Sample amount

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
3101	常量分析	ZYÔRYÔ- BUNSEKI	The chemical analysis to be performed with the sample of about 0.1 g to several g.	macroanalysis

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
3102	セミマイクロ分析	SEMI-MIKURO- BUNSEKI	The chemical analysis to be performed with the sample of about 10 mg to 100 mg.	semimicro analysis
3103	超微量分析	TYÔBIRYÔ- BUNSEKI	The chemical analysis to be performed with the sample of approximately 1 mg or less.	ultramicro analysis
3104	微量分析	BIRYÔ- BUNSEKI	The chemical analysis to be performed with the sample of about 1 mg to 10 mg.	microanalysis

3.3.2 Use

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
3201	回収試験	KAISYÛ-SIKEN	The test to measure the degree of recovery.	recovery test
3202	ガス分析	GASU-BUNSEKI	The chemical analysis to deal with the gaseous products as the object.	gas analysis
3203	官能基分析	KANNÔKI- BUNSEKI	The analysis to be performed by taking the functional group as the object.	functional group analysis
3204	器差試験	KISA-SIKEN	The test to obtain the instrumental error.	instrumental error test
3205	基準分析法, 一次標準測定法	KIZYUN- BUNSEKI-HÔ, ITIZI- HYÔZYUN- SOKUTEI-HÔ	An analytical method in which the characteristic value to be object is directly measured according to the basic unit of measurement or is made to be indirectly related according to physical or chemical theory so as not to use reference material. It is called the primary standard measuring method in the Mass Advisory Committee of the International Weights and Measurements Committee. Moreover, the isotope dilution method, the coulometric analysis, the gravimetric analysis, the titration analysis, the cryoscopic method are included in the definitive method.	definitive method ; primary method
3206	キャラクタリ ゼーション	KYARAKUTARI- ZÊSYON	An operation to clarify the characteristics of sample by the analysis to know the concentration and distribution condition of chemical species contained in sample.	characterization

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
3207	局所分析	KYOKUSYO- BUNSEKI	A chemical analysis to obtain micro-composition of sample, and to clarify the distribution of component concentration in the sample or existence state.	local analysis
3208	ケルダール法	KERUDÂRU-HÔ	One of the determination methods for nitrogen in organic compound. The sample is heated and decomposed by adding concentrated sulphuric acid, potassium sulfate, decomposition accelerator, and the nitrogen in sample is converted to ammonium sulfate. Strong alkali is added to this and distilled, the ammonia separated is collected, and then determined.	Kjeldahl method
3209	ゲルベル法	GERUBERU-HÔ	One of the determination methods for lipid in milk. Protein is dissolved by adding concentrated sulphuric acid to sample milk by using Gerber butyrometer, then heated and transferred to the graduated tube of the butyrometer, fat is separated by using a centrifuge, measured visually and lipid is determined.	Gerber method
3210	元素分析	GENSO- BUNSEKI	The analysis for the purpose of detection or quantitative determination of component element contained in sample products.	elemental analysis
3211	公定分析法	KÔTEI- BUNSEKI HÔ	A chemical analysis and test method which are established by nation or public organization, etc.	official method of analysis
3212	参照分析法	SANSYÔ- BUNSEKI-HÔ	An analytical method in which the reference material having the characteristic value rated based on the definitive method is used, or an analytical method in which the accuracy is inferior to definitive method but the rating can be easily carried out.	reference method of analysis
3213	試金 (しきん)	SIKIN	The quantitative determination of noble metal in ore or alloy.	fire assay

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
3214	主成分分析	SYUSEIBUN- BUNSEKI	a) The chemical analysis to be carried out relating to only the main component. b) In the case where correlation exists between the main causes constituting a certain phenomenon in statistical method, the analysis to determine the overall main components by integrating index group of high correlation.	major constituent analysis ; principal component analysis
3215	状態分析	ZYÔTAI- BUNSEKI	The analysis to obtain the chemical information other than the containing element composition of sample, for example, the information of profile of compound, distribution, crystal system, etc.	analysis of state
3216	スペシエーション, 化学種別分析	SUPESIÊSYON, KAGAKU- SYUBETU- BUNSEKI	An analysis in which when analyte takes some different forms and exists in sample, it is determined by respective species.	speciation
3217	全分析	ZEN-BUNSEKI	The chemical analysis to determine all components of sample. The organic element analysis and the clinical chemical analysis to be performed with limiting to the components described on the given table and the like are not called the total analysis.	total analysis
3218	超微量成分分析	TYÔ-BIRYÔ- SEIBUN- BUNSEKI	A chemical analysis in which the component of absolute quantity of under picogram (pg) is taken as the object. The size of items is irrespective.	ultratrace analysis
3219	定性分析	TEISEI- BUNSEKI	The chemical analysis to be performed for making clear the class of components of products.	qualitative analysis
3220	定量分析	TEIRYÔ- BUNSEKI	The chemical analysis to be performed to make clear the quantitative relation of components of products.	quantitative analysis
3221	デュマ法 (窒素 分析の)	DYUMA-HÔ (TISSO- BUNSEKI NO)	One of the determination methods for nitrogen in organic compound. A method in which sample is mixed with oxides, etc. and ignited, the nitrogen oxide produced is reduced by reduced copper and the nitrogen gas obtained is determined.	Dumas' method

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
3222	バッチ分析	BATTI- BUNSEKI	An analysis which is noncon- tinuously carried out by using beaker, flask, etc.	batch analysis
3223	半定量分析	HAN-TEIRYÔ- BUNSEKI	A qualitative analysis which is carried out so as to add a quantitative conception.	semiquantitative analysis
3224	微小分析	BISYÔ- BUNSEKI	The analysis obtaining chemi- cal or physical information re- lating to micro zone (for exam- ple, the area of μm diameter) or micro volume part of bulk sample.	microprobe analysis
3225	微量成分分析, こん跡 (量) 分析	BIRYÔ-SEIBUN- BUNSEKI, KONSEKI-(RYÔ)- BUNSEKI	The chemical analysis which is made the object for the compo- nent of absolute quantity from ng level to μg level. The size of items is not important.	trace analysis
3226	プロセス分析	PUROSESU- BUNSEKI	An analysis which is carried for the process control or con- trol in chemical plant, etc.	process analysis
3227	分離分析	BUNRI- BUNSEKI	The generic term of analysis in which the sample containing some components is separated to each component, and then a confirmation reaction or de- termination is carried out for each component.	separation analysis
3228	レーゼ・ゴット リーブ法	RÊZE- GOTTORÎBU- HÔ	One of the determination methods for lipid of milk and milk product. The protective film of globule of fat is broken to disperse by ammonia, the separated fat is made ethanol solution, then extracted by us- ing the mixed solution of di- ethyl ether and petroleum ether, dried by evaporating and removing solvent, and then the amount of lipid is obtained by weighing the mass.	Röese-Gottlieb method

3.3.3 Principle

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
3301	ELISA, 酵素免 疫測定法	ERIZA, KÔSO- MEN'EKI- SOKUTEI-HÔ	A method in which the concen- tration of analyte is measured by means of the combination of characteristic of antibody re- acting the specific products with the labelled enzyme.	enzyme-linked immunosorbent assay

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
3302	開管試験	KAIKAN-SIKEN	The test to understand the component by putting the sample (solid) into a hard glass tube opened at both ends to heat and by observing the condition when the sample changes according to oxidation.	—
3303	乾式分析法	KANSIKI-BUNSEKI-HÔ	A chemical analysis in which dry reaction is utilized. The solution type reagents are not used at all or, used only auxiliary or for secondary purpose even if used.	dry analysis
3304	官能評価分析	KANNÔ-HYÔKA-BUNSEKI	The generic term of that which the sensory characteristics are investigated by human sensory organs.	sensory analysis
3305	機器分析	KIKI-BUNSEKI	The chemical analysis by using an instrument.	instrumental analysis
3306	機器放射化分析法	KIKI-HÔSHA-KA-BUNSEKI-HÔ	A method in which is activation analysis, analysis is carried out so that chemical operation is not added to the activated sample but γ ray spectrometry is directly applied.	instrumental activation analysis
3307	凝固点降下法	GYÔKOTEN-KÔKA-HÔ	The method to measure the molecular weight or the like of sample by utilizing such phenomenon that the solidifying point of products lowers when the pure products other products is added.	cryoscopic method
3308	ケモメトリックス	KEMOMETORI-KKUSU	One field of chemistry in which the planning and selection of optimum design of experiment are carried out by applying a mathematical method or statistical method and the maximization of the chemical information content obtained from chemical data is made the purpose.	chemometrics
3309	湿式分析法	SISSIKI-BUNSEKI-HÔ	The chemical analysis method to perform according to reaction in solution.	wet analysis
3310	質量分析	SITURYÔ-BUNSEKI	A method in which the ion of atom and molecule is analyzed according to the difference of the ratio (m/z) of mass to electric charge by utilizing electromagnetic mutual action.	mass spectrometry

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
3311	自動分析法	ZIDÔ-BUNSEKI- HÔ	The method to perform the measurement of characteristics of sample automatically. For measurement the pretreatment and concentration calculation are performed automatically in some cases. Usually, the taking of laboratory sample and preparation are not contained. The measuring items are many items or variable in many cases.	automated analysis
3312	重量分析	ZYÛRYÔ- BUNSEKI	The quantitative analysis to obtain the quantity of analyte, by separating the component to be determined as pure products of a definite composition, from the mass or the mass of residue.	gravimetric analysis
3313	蒸留試験	ZYÔRYÛ-SIKEN	The test to examine the purity or composition of products by performing distillation.	distillation test
3314	滴定	TEKITEI	An operation to react the analyte included in sample solution with the standard liquid of known concentration as reagent (it is called "titrant") or with titrant electrochemically generated, and to determine analyte from the amount of standard liquid or electrical quantity consumed until the end point of stoichiometrical reaction.	titration
3315	電磁気分析	DENZIKI- BUNSEKI	An analysis in which the electromagnetic property such as x-ray, electron beam, ion beam, electric field, magnetic field is acted upon analyte and the information relating to molecule, atom, etc, is obtained.	electromagnetic method of analysis
3316	点滴分析	TENTEKI- BUNSEKI	The chemical analysis to perform by sample solution of about one drop mainly on the drop plate.	spot analysis
3317	同位体 (比) 分析	DÔITAI-(HI)- BUNSEKI	An analysis which is carried out for obtaining the ratio of the presence amount of isotopes composing the elements in sample.	—
3318	同位体希釈分析	DÔITAI- KISYAKU- BUNSEKI	A method in which when the analyte in sample is determined, a definite amount of the relevant analyte with different ratio of isotope is added (after the analyte is chemically separated), and the ratio of isotopes is measured.	isotope dilution method

Num ber	Term (Japanese character)	Reading	Definition	English equivalent (informative)
3319	熱分析	NETU- BUNSEKI	The one group technical method to measure a certain physical property of the products (and/or its reaction generation products) as the function of temperature while changing the temperature of products according to the adjusted program.	thermal analysis
3320	灰吹法 (はいふきほう)	HAIHUKI-HÔ	The method to measure the weights of gold, silver, etc. with parting by extracting gold, silver, etc. by lead, with placing on a cupel, putting into a furnace and igniting.	cupellation
3321	ページ・ トラップ法	PÂZI- TORAPPU-HÔ	A method in which the volatile component in liquid or solid sample is moved in inert gas, introduced to a trap tube and collected to concentrate.	purge and trap method
3322	パターン分析	PATÂN- BUNSEKI	A method in which the information is obtained from the extension and distribution, etc. of spatial and hourly quantity in a certain range.	pattern analysis
3323	光分析	HIKARI- BUNSEKI	The generic term of chemical analysis in which the radiation, absorption, scattering, etc. of light are utilized.	photometric analysis ; photometry
3324	比色分析	HISYOKU- BUNSEKI	The qualitative and quantitative analysis by comparing the color tone, color density, etc., by transmitted light or reflected light of sample products with the standard color plate, standard color solution, etc.	colorimetric analysis
3325	標準添加法	HYÔZYUN- TENKA-HÔ	An analytical method in which a definite amount is taken from sample solution, a working curve is prepared by adding step by step the standard solution of objective component, the concentration equivalent to the distance from the point, where the obtained straight line is extrapolated to zero of signal amount, up to zero of the addition concentration is obtained and taken as the concentration of analyte.	standard addition method