

**A DICTIONARY OF
ENGLISH WORDS
COMMONLY USED IN
CHEMICAL LITERATURE**

化学英语常用词词典

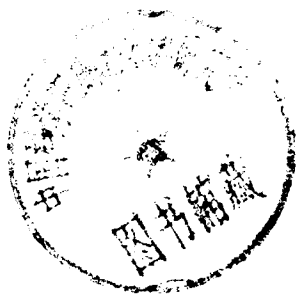
黄仕永 金秉慧 编著

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**A Dictionary of English
Words Commonly Used
in Chemical Literature**

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前 言

化学英语属于科技英语,给人的直接印象是拥有大量难以理解的专业词汇。为了帮助初读化学英语文献者掌握常见的半专业多义词汇,以及在化学文献中具有特殊含义或用法的普通英语词汇,我们编写了此书。本书重点讲述普通英语词典中往往很难查到的多义词汇的恰当释义和用法。由于大多数专业词汇与中文术语一一对应,对本专业的工作者来说,并不构成英语理解方面的困难,所以一般对此不予叙述。这本小词典包括约650个常用词词条,如将本书与一本普通英语词典(例如《牛津现代高级英汉双解词典》)合用,读者可顺利阅读化学文献,并正确理解其基本内容。

编著此书考虑到以下不同类型读者的不同需要:(1)学过基础英语的化学类专业学生阅读本行书籍时查索有关词汇和词组的含义和用法。(2)学过初级化学专业英语者用作中级化学英语读物。(3)非化学专业者可以借助本书熟习化学英语。(4)初学化学文献翻译者可以从一词多义的实例中类比推敲比较准确的含义。(5)全书的最后附有汉英索引,便于汉译英者选择用语和范句时参考。

本书中的例句均直接取自西欧和北美的化学出版物,选材中注意收集能说明词汇搭配的句子,并注意句子的易读性和知识性。内容的安排和叙述力求简练,通过例句译文设法表达确切词义和引申词义,为照顾初学者,译文尽量与原文对应,但必要时也采用较灵活的译法。为节省版面,许多内容较短的词条不另行排印,以◇隔开;例句均连续排印,中间以||隔开,如果例句中所说明的是词条的衍生词,则以#隔开。

本书的编写是一种尝试,无前例可供遵循,加上我们水平有限,可能存在有不少问题,欢迎多提意见,我们在此表示衷心的感谢。

黄仕永 金秉慧

1991年4月20日

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ability *n* ① 能力 || The technical titanium (III) sulfate solutions commercially available tend to lose their nitrate-reducing *ability* even when stored in a refrigerator. 即使把市售的工业硫酸亚钛溶液存放在冰箱中, 它仍趋于丧失其还原硝酸盐的能力。② (后常接不定式表示做某事的能力, 但不能接“of+动名词”。在这种句式中, 通常使用定冠词the) || Many solutes have the *ability* to quench the fluorescence of the indicator phosphor. 许多溶质能使此荧光体指示剂荧光猝灭。

absence *n* ① 没有, 不存在 || The *absence* of the acid chloride in the effluent is ascertained by a spot test with ethylenediamine. 用乙二胺点滴试验, 证明流出液中确实不含酰基氯。② in the *absence* of A 当 A (人, 物, 事) 不在 (或不存在) 时 || In the *absence* of EDTA, the colour produced by the aluminium-xenol orange complex is stable for several days. 当没有 EDTA 存在时, 铝-二甲酚橙络合物的颜色可以稳定数日。◇ **absent** *adj* || Sulfur acids other than sulfuric acid must be *absent*. 除硫酸以外的其他含硫酸类必须不存在。

absorb *v* 吸收 || A hygroscopic substance is one that *absorbs* moisture from the air. 吸湿性物质是指一种能吸收空气中水分的物质。|| (有时可省略宾语) It was necessary to make measurements at 430 nm since sodium dithionate *absorbs* strongly below 410 nm. 由于连二硫酸钠在低于 410nm 处有强烈吸收, 因而必须在 430nm 处进行测量。

|| The lead is converted to lead oxide by atmospheric oxygen and is *absorbed* into the cupel. 铅被空气中氧转化为氧化铅并被吸收在灰皿之中。◇ **absorption** *n* 吸收 || In other words, when the temperature is raised the equilibrium shifts in the direction which causes an *absorption* of heat. 换言之, 当温度升高时, 平衡朝着发生吸热的方向移动。|| The *absorption* of the yellow Al-8-hydroxyquinoline complex was measured at 410nm. 黄色的铝-8-羟基喹啉络合物的吸收在 410nm 处测量。

◇ **absorbance** *n* 吸光度 || *Absorbance* measurements are made at 390 nm in solutions of pH 6.8. 在 390 nm 处测量 pH 为 6.8 的溶液的吸光度。

abundance *n* ① 大量 (不可数, 和 in 连用, 中间可加 great, immense 等形容词) || In particular, readily ionizable species present in *abundance*

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can cause background problems and also result in suppression of the signal for the element of interest. 特别是大量存在的易电离型体可能产生背景问题,并且致使待测元素的信号受到抑制。③ an abundance of (后接可数名词复数或不可数名词)大量的 || Chemical literature contains an abundance of analytical procedures suitable for rock and mineral analysis. 化学文献中有大量适用于岩石和矿物分析的分析步骤。④ 含量,丰度 || The sodium carbonate fusion procedure give more precise values at lower abundance levels. 对于较低含量,碳酸钠熔融法所得的数值较为精密。|| The outer planets are quite different in terms of elemental abundance. 外行星的元素丰度有很大差别。◇ abundant adj 丰富的 || Together, silicon and oxygen make up 74 percent of the mass of the Earth's crust, and they occur mostly as the silicates of the abundant metals Al, Fe, Ca, Mg, Na, and K. 硅与氧一起共占地壳质量的74%,它们主要以广泛分布的金属 Al、Fe、Ca、Mg、Na 和 K 的硅酸盐的形式存在。|| Phosphorus is the twelfth most abundant in nature, and is found most frequently in the form of phosphates like $\text{Ca}_3(\text{PO}_4)_2 \cdot \text{H}_2\text{O}$. 磷的丰度在自然界中排在第 12 位,它经常以磷酸盐,例如 $\text{Ca}_3(\text{PO}_4)_2 \cdot \text{H}_2\text{O}$ 的形式存在。

accept v 接受,同意 || The instrument accepts information from a detector and presents it in a convenient form to the user. 仪器由检测器接受信息,然后以方便的形式显示给使用者。|| While the generalizations we have mentioned are useful, they must be accepted and used cautiously. 尽管我们提到的这些通则是有用的,但应该谨慎地采纳和应用它们。

◇ acceptable adj 可接受的 || Considering the nature of the samples, the results are quite acceptable. 考虑到样品的性质,这个结果完全可以接受。

accomplish v (取得成功的)完成,实现 || To accomplish high-quality analyses, it is necessary to have an unbiased, precise method. 为了完成高质量分析,必须有无偏倚的、精密的方法。|| The genetic control is accomplished by DNA molecules. 遗传的控制是由脱氧核糖核酸分子来实现的。|| This can be accomplished through liquid-liquid extraction or through ion exchange procedures. 这可以用液-液萃取或用离子交换法实现。

according to prep (引起介词短语,用作状语)根据 || According to magnetic measurements, each O_2 molecule has two electrons with unpaired spins. 根据磁性测量,每个 O_2 分子具有 2 个自旋不成对的电子。|| In acid medium potassium permanganate reacts very rapidly with many

reducing substances *according to* definite stoichiometric equations. 在酸性介质中, 高锰酸钾与许多还原物质按确定的化学计量方程式迅速发生反应。◇ *accordingly adv* 根据情况 || It is essential that the geochemical analyst understand the purpose for which a sample is collected, and that analytical techniques are devised *accordingly*, 地球化学分析人员必须了解采取试样的目的, 并根据情况设计分析方法。|| Statistical tests may be applied to determine whether serious deviation from a gaussian distribution exists and to interpret the data *accordingly*. 统计检验可用来判定是否存在严重偏离 Gauss 分布的情况, 并且根据情况解释数据。

account¹ *n* ① 叙述 || A short *account* of the development of combustion in an oxygen-filled flask is followed by a general description of the technique. 在简短叙述充氧瓶燃烧法的发展之后, 对其技术进行概括叙述。

|| We have not found *accounts* of the dissociation equilibria of SMTB and of its metal complexes. 至今我们没有找到有关半甲基百里酚蓝和其金属络合物的离解平衡的叙述。② *of* (+形容词) *account* (形容词可用 great, small, little, no 等) 有…重要性 || In rock analysis the error is usually *of no account*. 在岩石分析中, 这个误差通常无影响。③ *on this account*² 由于这个缘故 || Balances differ greatly in their susceptibility to error *on this account*. 由于这个缘故, 天平产生误差的程度大不相同。

|| Vycor crucibles are generally heavier than silica glass and less desirable *on this account*. Vycor 坩埚通常要比石英玻璃坩埚重, 因此用它很不合适。④ *take account of* 考虑 || All the techniques suffer interference effects and *account must be taken of* blank and contamination levels. 各种技术均有干扰效应, 必须考虑空白和污染的量。

account² *v* (+for) ① 说明 (使用被动语态时可译作“由于”) || The Bohr model of the atom was the first successful model of the hydrogen atom, in that it quantitatively *accounted for* the emission spectrum and ionization potential of atomic hydrogen. Bohr 原子模型是第一个成功的氢原子模型, 它定量地说明了氢原子的发射光谱和电离势。|| More than half the chromium is *accounted for* by these chromite grains. 超过一半的铬含量是由于这些铬铁矿颗粒所致。② 弄清楚 || The interference from manganese must be *accounted for* by pre-calibrating the volume of EDTA solution required to react with a known amount of manganese. 必须事先校准与已知量锰反应所需的 EDTA 溶液的体积, 以便弄清来自锰的干扰。③ (不用被动语态) 占 || Silica determinations are required to have a higher precision than any other element, since it *accounts for* over 40%—

45% of the sample. 二氧化硅的测定需要比其他所有元素有更高精度, 因为它的含量占样品的40%—45%以上。

accuracy *n* (不可数) 准确性 || *Accuracy* is a measure of the closeness of the measurement to the "true" value. 准确性是测量值对于真值接近程度的量度。 || In 1927 Heisenberg showed that there is a fundamental limit to the *accuracy* with which certain physical measurements may be made simultaneously. 1927年 Heisenberg 指出, 对某些同时作出的物理测量, 其准确度有一基本限制。 ◇ **accurate** *adj* 准确的 || *Results accurate to* (介词 to 在这里表示程度) within 1% were obtained for from 3 to 7.5 mg amounts of sulphate by this method. 对于3—7.5 mg 含量的硫酸盐, 用此法可得到准确至 1% 的结果。 || For *accurate* work, colorimetric methods are usually restricted to determinations involving low percentages, say below about 2%. 对于准确的工作, 比色法通常限于测定低百分率, 例如低于约 2%。

achieve *v* (克服困难后) 完成 || Quantitative analyses that are accurate to within ± 10 percent can be *achieved* routinely by available methods for up to 55 elements. 应用现有的方法可以例行地完成多达 55 种元素的定量分析, 其准确度在 $\pm 10\%$ 以内。 || In order to *achieve* the sensitivities indicated in Table 6.3, it is necessary to excite sample with a DC arc discharge. 为了实现表 6.3 所列的灵敏度, 必须采用直流电弧放电激发样品。 || Static electric charges must be dissipated if accurate weighing is to be *achieved*. 为实现正确的称重, 必须将静电荷驱散。

acid *n* 酸 || Alcohols react with organic *acids* to form esters. 醇与有机酸反应生成酯。 || The carbonate siderite is quite *acid* resistant and is slow to dissolve. 菱铁矿这种碳酸盐相当耐酸, 溶解缓慢。 ◇ **acidic** *adj* 酸的, 带酸性的 || In this case the strongly colored species is the *acidic* form. 在此情况深色型体为酸式。 || Because the phenolic hydroxyl group is *acidic*, it is also converted to the corresponding sodium salt during the basic hydrolysis. 由于酚羟基是带酸性的, 它在碱性水解过程中也被转变成相应的钠盐。 ◇ **acidify** *v* 酸化 || *Acidify* the filtrate with 2M HCl (testing the solution with litmus paper). 用 2M HCl 酸化滤液 (用石蕊试纸试验此溶液)。

acquire *v* (经过努力) 得到 || Ordinary thermal reactions proceeding in the dark *acquire* their activation energy through random, successive collisions between molecules. 在黑暗中进行的热反应, 通常是通过分子间无规则的、连续的碰撞得到活化能的。 || A drying agent is an anhydrous

inorganic salt that *acquires* water of hydration when exposed to moist air or a wet solution. 干燥剂是一种无水的无机盐，它在露置于湿空气或湿溶液中时要获取结合水。

act *v* ① 起作用 || Soaps *act* by lowering the surface tension between water and an oil or other insoluble material. 肥皂通过降低水和油（或其他不溶物）间的表面张力而起作用。② *act as* 起…的作用 || It was early recognized that an extremely sensitive test can be secured for a substance if it *acts as* a catalyst for an appropriate reaction. 很早就发现，如果某物质对于一个合适的反应起催化剂的作用，就可以得到对该物质极灵敏的试验方法。③ *act on* (或 *upon*) 对…起反应 || Care should be taken that any phosphate particles adhering to the sides of the crucible are *acted upon* by the hot sodium carbonate. 注意要使热碳酸钠与粘附在坩埚壁上的磷酸盐颗粒起反应。◇ **action** *n* 行为，作用 || Sometimes, these *actions* are justified but more often lead to collection of useless data. 有时这种作法是合适的，但是更多的情况是导致收集无效数据。|| Fuge described apparatus for the photometric determination of fluoride by its fading *action* on the zirconium-xylene orange complex. Fuge 描述了利用氟对于锆-二甲酚橙络合物的退色作用而进行氟化物光度测定的仪器。

active *adj* 活泼，有效 || Calcium is produced primarily by reducing the oxide with the *active* metal aluminum. 钙主要用活泼金属铝还原其氧化物制成。|| Reaction of the compounds with formaldehyde gives polarographically *active* compounds that are useful for the determinations. 这些化合物与甲醛反应产生可用于测定的极谱活性化合物。|| Establishment of structures and reaction mechanisms of enzymes is an *active* field of present-day research. 酶的结构和反应机理的确立是当今研究工作的一个热门领域。|| A packet of detergent contains about 20 percent of *active* detergent and an equal amount of Na_2SO_4 , which increases the bulk of the powder. 一包洗涤剂中含有约 20% 有效的洗涤剂，还加入等量 Na_2SO_4 ，增加粉末的量。

activity *n* ① 活动 || You can note from these considerations that the *activity* called science is difficult to define in both simple and precise terms acceptable to all scientists. 从这些讨论可知，称为科学的这种活动很难用既简单又精确的词句作出所有科学家都能接受的定义。② 活性 || After boiling, the *activity* of the HF was neutralized by adding boric acid crystals. 煮沸后加入硼酸晶体抵消 HF 的活性。|| The *activity* of metals may be compared by comparing their half-cell potentials with a reference

half-cell, both under standard conditions. 将金属的半电池电位与参考半电池电位（均在标准情况）对比，可以比较金属的活性。③ 活度 || An ion-selective electrode measures the free-ion *activity* in a solution that depends on ionic strength, complexing agents, and so forth, and not necessarily the total ion concentration. 离子选择性电极测量溶液中的自由离子活度，后者与离子强度、络合剂等等有关，所以测得的不一定是总离子浓度。④ 放射性 || Activation analysis is based on the selective measurement of the *activity* from radioactive nuclides that are produced by nuclear reactions on naturally occurring isotopes of the element to be determined in the sample. 活化分析的基础是令样品中待测元素的天然存在的同位素产生核反应，从产生的放射性核素的放射性进行选择测量。

adapt *v* 改变，适应 ①（常和 to 连用）|| We can *adapt* this expression to calculate the total rate at which A-molecules collide with B-molecules. 我们可将此式改变以计算 A 分子与 B 分子的总碰撞率。|| All living creatures have to *adapt* themselves to their environment. 一切生物必须适应它们的环境。②（后接介词 for 表示目的）|| Solid state fluoride electrodes can be *adapted* for use with small volumes. 固态氟电极可改装用于小的体积。|| In this paper we describe a simple device that will *adapt* most solid state electrodes for the rapid determination of samples. 本文中我们描述一个简单装置，它能适应多数固体电极用于样品快速测定。

The method is highly selective and readily *adaptable* to a routine operation. 此法具高选择性，并且容易变通于例行操作。

add *v* 加入 || The solution should be hot and the reagent *added* dropwise and slowly and only in slight excess. 溶液应热，试剂要慢慢滴加，而且只稍过量。|| At a later time, LOI is *added* to the report for reference purposes. 为了便于参考，在以后将烧失量列在报告中。||（过去分词可用作定语）These fusions have the *added* advantage of removing many other elements from the solution prepared for the determination of vanadium. 这些熔融方法还有一个优点，即在所制备的用于测定钒的溶液中可以除去许多其他的元素。◇ **addition** *n* ① 加入（可用复数，表示加入多次）|| The *addition* of acetone increases the intensity of the In line at 451.1 nm. 加入丙酮可增加 In 的 451.1 nm 谱线的强度。|| The octane number of petrols can be improved significantly by *additions* of small amounts of chemicals known as anti-knocks. 汽油的辛烷值在加入少量称做抗震剂的化学药品后可以得到显著改善。② **in addition** 此外 || *In addition*, nitrate may be determined by removing nitrite and subse-

quently reducing nitrate to nitric oxide. 此外还可以测定硝酸盐, 先除去亚硝酸盐后再将硝酸盐还原为氧化氮。③ *in addition to* (后接名词或动名词) 除...外 || *In addition to the aforementioned oxides, certain minor constituents may occur in some rocks.* 除上述氧化物外, 有的岩石中还可能出现某些次成分。◇ *additional adj* || *Sulfide minerals pose additional problems.* 硫化矿物还有其他的问题。|| *Additional steps have been included in most of the methods to remove interfering species.* 为了除去干扰型体大多数方法中包括有附加的步骤。

additive ① *adj* 可加的 || *The sulfuric acid and the water interact, and the sulfuric acid ionizes, with the result that the volumes are not additive.* 硫酸与水相互作用, 而且硫酸发生电离, 结果使它们的体积不存在加和性。② *n* 加入物 || *In order to remove this interference, the effect of various additives was studied.* 为了消除这种干扰, 研究了多种加入物的影响。|| *Additives are added to gasoline to improve the knock-resistance of the fuel.* 在汽油中加入添加剂以改善燃料的抗爆震性能。

adequate adj (在容许范围以内对某项目的) 适用的 || *The sensitivity of the method was adequate for the analyses carried out in these laboratories.* 对于在这些实验室中所从事的分析, 此法足够灵敏。|| *Adequate details of procedure are described.* 操作方法的叙述相当详细。|| *If students are to perform the sample injections themselves, they must have adequate instruction beforehand.* 若由学生自己注射样品, 事先一定要给予适当的指导。# *However, the following evidence shows that this representation does not adequately describe the structure of benzene.* 然而下列证据证明, 此表示方法不能恰当描述苯结构。

adsorb v 吸附 || *The Norit preferentially adsorbs the colored impurities and removes them from the solution.* Norit 牌脱色炭能优先吸附有色杂质, 从而将其从溶液中除去。◇ *adsorption n* || *Open ocean water should be acidified to pH 2 with ultra-pure HCl as soon as possible after collection to prevent adsorption.* 大洋水在收集后要尽快用超纯 HCl 酸化至 pH 2, 以防吸附。|| *The resulting colloidal Se can effectively be collected by adsorption on activated carbon.* 生成的胶态 Se 可吸附在活性炭上而被有效地收集。

advance ① *n* 进展 || *The twentieth century has seen enormous advances in the scientific basis of inorganic chemistry.* 无机化学的科学基础在 20 世纪有巨大进展。|| *Column activity was checked in advance of (在...以前) each sample series run by injecting a standard solution.* 在实

验每一样品系列以前要注入标准溶液检查柱的活性。② *v* 前进, 提出 || A separation results from the differences in the rates at which the individual components of the mixture *advance* upwards on the plate. 在薄板上, 分离作用系由混合物中个别组分沿板上行速率的差异所造成。|| The concepts *advanced* above, concerning the behavior of Mo in aqueous media, in no way conflict with his conclusions; rather, they supplement them. 上面提出的有关 Mo 在水介质中的行为的看法, 与他的结论丝毫不矛盾; 正相反, 这些看法是结论的补充。

advantage *n* ① 优点 || (表示“具有”优点, 常用 claim, enjoy, have, offer 等动词) The use of gaseous ammonia rather than an aqueous solution of an alkali, to neutralise the acid digest has several *advantages*. 用气态氨中和酸溶解液比用一种碱的水溶液去中和酸溶解液有几个优点。|| (后可接 over 表示超过) Extraction has the *advantages* over precipitation of avoiding coprecipitation and of being applicable to smaller quantities of material. 与沉淀法相比, 萃取法的优点是可以避免共沉淀, 而且适用于较小量的物质。|| The alkaline reaction medium is of *advantage* when Cu is to be determined in NaOH, Na_3PO_4 , NH_4OH . 当在 NaOH、 Na_3PO_4 或 NH_4OH 中测定 Cu 时, 碱性反应介质是有利的。② **take advantage of** 利用 || To overcome these difficulties, *advantage* has been taken of the unique property of metallic mercury, that of its high vapour pressure at room temperature. 为了克服这些困难, 利用了金属汞在室温下具有高蒸汽压的独特性质。③ **to advantage** 有效 || Dithiol is less selective than thiocyanate, but it is more sensitive and can often be used *to advantage* when small amounts of both molybdenum and tungsten are to be determined. 二硫酚的选择性不及硫氰酸盐, 但是它比较灵敏, 而且常可有效地应用于同时测定小量的钼和钨。◇ **advantageous *adj*** 有利 || Rotated electrodes are highly *advantageous* owing to their high mass transport rates which provide great sensitivity. 旋转电极由于具有高的质量迁移速率, 故灵敏度大, 极为有利。

affect *v* ① 影响 (多指产生不好的影响) || All analytical techniques are *affected* by contamination. 所有分析技术都受污染影响。|| Neither element is likely to be present in silicates in sufficient amount to *affect* the determination. 在硅酸盐中, 两种元素都不太可能存在足以影响此测定的含量。② 感染 || After applying either NaHCO_3 or dilute acid solution, flush the affected area with water for 10—15 minutes. 先用 NaHCO_3 或稀酸溶液处理, 再用水冲洗患部 10—15 min.

agree *v* 符合 || This does not *agree* with Shibata's results. 此结果与 Shibata 的结果不符。 || The two analyses of Table 3.40 show that competent classical analysts can *agree* fairly well in their analyses of even marginally homogeneous materials. 表 3.40 的两个分析数据证明, 合格的经典分析家在分析甚至只能勉强算是均匀的样品时, 也能相符的相当好。

◇ **agreement** *n* ① 符合 || There is a good *agreement* between the theory and experiment. 理论与实验符合良好。 ② 协议 || Our present scale of atomic masses was established in 1961 by international *agreement* amongst the scientific communities of many countries. 我们现在的原子质量标是于1961年由许多国家的科学团体国际协议而确定。 ③ **in agreement with** 相符 (多作表语) || The results are *in excellent agreement* with those obtained by the official sulphide separation procedure. 结果与法定的硫化物分离法所得结果相符极好。

aid¹ *n* ① 帮助 (不可数) || No operation can be performed without the *aid* of a balance and the accuracy of all analytical operations is ultimately dependent on its proper use. 不借助天平, 一切操作都不可能完成, 而一切分析操作的准确性, 说到底, 都要依靠天平的正确使用。 ② 辅助用品 (可数) || Various washing powders and cleansers can be used as *aids* in dishwashing. 各种洗涤粉和去垢剂可用于盘碟洗涤助剂。

aid² *v* 帮助 || To *aid* comparison with other methods of grinding, some samples were ground in an alumina mortar known to have contents of about 0.8 per cent of Cr_2O_3 and 4 per cent of SiO_2 . 为了与其他研磨方法对比, 将一些样品在氧化铝研钵中研细, 此研钵成分中含约0.8% Cr_2O_3 和 4% SiO_2 . || The technique also *aids* in determining unknown dissolved gas peaks in chromatograms. 此技术有助于确定色谱图中未知的溶解气体峰。

aim¹ *n* 目的 || The *aim* during the ammonia precipitation should be to completely separate aluminum from the solution without precipitating any magnesium or manganese. 氨水沉淀的目的应是将铝从溶液中分离完全但又不使丝毫镁或锰沉淀。

aim² *v* ① **aim at** (后接名词或动名词) 对准 || The publication *aimed at* providing analytical chemists with a collection of methods that had been well tried and authoritatively approved. 此出版物是为分析化学家提供业已充分考验并经权威认可的方法汇编。 ② **aim for** (后接名词) 意图 || We have *aimed for* a logical and concise style of presentation, illustrated often by examples that employ real data. 我们力图采取合乎逻辑而又简

明的表达形式, 并且常常采用实际数据举例说明。

aliquot *n* 分取样, 分取液 || *Aliquots of this sample were analyzed 13 times during the following two years.* 以后2年中对此样品的分取部分共分析了13次。 || *TiO₂ was determined photometrically on 5 mL aliquots of solution B from the yellow colour developed with tiron.* 分取 5 mL 溶液B, 加钛铁灵, 利用显出的黄色, 光度测定 TiO₂。

all ¹ *adj* ① (后接可数名词复数) 所有的, 全部的 || *All solutions were prepared from analytical-grade chemicals and redistilled water.* 所有的溶液均用分析纯试剂和二次蒸馏水配制。 || (与名词之间可插入 the) *All the alkali metals find some use as reductants in laboratory and industrial processes.* 所有碱金属均可在实验室或工业生产上用作还原剂。 ② (后接不可数名词) || *Anyone working with sodium metal should avoid all contact of the sodium with the skin.* 在用金属钠进行实验时, 要绝对避免金属钠触及皮肤。 ③ *all ... not* (表示部分否定) 并不是都 || *All elements are not treated. The halides, nitrogen, oxygen, hydrogen, rubidium and cesium are not included.* 没有叙述全部元素。卤素、氮、氧、氢、铷和铯均未讨论。

all ¹ *pron* ① 全体 || *If this is done, a thorough rinsing after use is all that required.* 如果照这样做, 使用后只需充分冲洗即可。 ② *at all* (加强语气) 全然, 确实 || (常用来加强否定的含义) *Some samples require no treatment at all.* 有的样品完全不需要处理。 || *In determining the K-signal — Li-signal ratio in a low-temperature flame, dilutions for high-potassium samples are not at all critical, and a 10% dilution error has very little effect on the observed ratio.* 于低温火焰内测定 K 信号与 Li 信号比值时, 高钾样品的稀释完全不必严格, 稀释体积即使有 10% 误差, 对所观察的比值影响也极小。 || (可与 if 连用) *It is best to obtain pure anhydrous ethanol if at all possible.* 只要可能, 最好用纯的无水乙醇。

allow *v* ① 容许 (不禁止) || *Classical gravimetric procedures were, in general, not sufficiently sensitive to allow determination of trace elements.* 一般说来, 经典的重量法的灵敏度不足以测定痕量元素。 ② (后接名词 + 不定式) || *Allow the mixture to stand at room temperature for 1 hour.* 将混合物于室温放置 1 h。 || *All types of electronic calculators allow calculations to be completed quickly and accurately.* 各类电子计算器都能迅速而准确地完成计算。 || *The experiments performed allow the following conclusion to be drawn.* 从完成的实验可得到下列结论。

③ *allow for* 考虑到 || *The principle of the conservation of mass in*

a chemical reaction *allows for* changes in elemental composition of substances. 化学反应的质量守恒原理考虑到物质的元素组成方面的变化。 || A very slight reduction of sensitivity caused by the presence of these anions in large amounts can be *allowed for* by incorporation of similar amounts in the solutions used for calibration. 大量上列阴离子共存时所引起的灵敏度的微小降低, 可在校正溶液中加入类似量予以补偿。 ◇ *allowance* *n* *make allowance for* 考虑到 || *Allowance* must also be *made for* the proportion of coprecipitated manganese and trace silica. 还必须考虑到共沉淀部分的锰和痕量二氧化硅。 || During the determination of simple reducing sugars, it may be possible to *make an accurate allowance for* the side effects of alkali and oxygen by calibration under equivalent conditions. 在测定简单还原糖时, 可以在相同条件下校正以便准确地补偿碱和氧的副效应影响。

alternate ① *adj* 交替, 轮流 || With some substances *alternate* charring and addition of H_2O_2 is necessary, but care must be taken that the amount of H_2SO_4 is not greatly reduced by evaporation. 有的物质需要交替地碳化和加入 H_2O_2 , 但是要小心勿使 H_2SO_4 因蒸发而减少太多。 # *Alternately*, the slurry is mixed by swirling and is then poured in portions into the top of the draining column. 借助旋摇动作使浆液混合, 然后一份份地倾入正在流出溶剂的柱子的顶部, 这两种动作要交替地进行。 ② *v* || Monomers that are different can also be linked, to form a polymer with an *alternating* structure. 也可以将不同的单体连接起来, 形成具有交替结构的聚合物。

alternative ① *adj* 可代替的 || This element of doubt has led several authors to examine *alternative* methods. 这个不确定因素促使几位作者研究代替的方法。 || After examination of *alternative* procedures, a scheme of analysis was agreed upon and used by the collaborating laboratories. 经过审查不同方法以后, 各合作实验室一致同意了一个分析方案并且用它分析。 # *Alternatively* stated, the partial pressure of solute vapor above the solution is proportional to the mole fraction of the solute in the solution. 换言之, 溶液上的溶质的蒸气分压与该溶质在溶液中的摩尔分数成正比。 ② *n* || An *alternative* is silver periodate, in which case chlorides interfere. 另一种替代试剂是高碘酸银, 但这时氯化物有干扰。 || It is commonly assumed that the gaussian model is applicable unless there is a specific reason for choosing an *alternative*. 通常假定 Gauss 模型为适用, 除非有特殊理由选择另外的模型。

ambient *adj* 周围的 || The solution was allowed to react at *ambient* temperature for 15 min before dilution to volume. 将溶液于室温作用 15 min, 然后稀释定容。 || The dissolved N_2O was found to be supersaturated with respect to *ambient* air. (作者)发现溶解的 N_2O 对于环境空气是过饱和的。

amount¹ *n* ① 量 || Other alkali metals do not interfere when present in *small amounts* (小量地)。其它碱金属小量共存时不干扰。 ② (常和不可数名词一起用) || Modest *amounts* of fluorine are used for water fluoridation. 不多数量的氟被用于水的氟化。 || Dissolve the exact *amount* of triple-distilled mercury in concentrated nitric acid, boil to expel oxides of nitrogen, and dilute with double-distilled water. 将三次蒸馏汞的精确量溶于浓硝酸, 煮沸驱逐氮的氧化物, 用二次蒸馏水稀释。 ③ *a* (+ 形容词) *amount* of (大或小)量的 || The method of sample preparation and the design of the sample introduction module are the result of a considerable *amount* of preliminary investigation to overcome a number of problems. 制样的方法和进样装置的设计, 是为克服许多问题所作的大量初步研究工作的成果。

amount² *v* *amount to* (后接名词或动名词) 等于, 实际上是 || The calcium recovery from the magnesium pyrophosphate *amounted to* 0.0008 g $CaCO_3$. 从焦磷酸镁中回收钙量为 0.0008 g $CaCO_3$. || The cadmium is first deposited in the hanging mercury drop by electrolysis. This step *amounts to* a preconcentration. 先通过电解, 把镉沉积在悬汞电极上。这一步骤相当于预先富集。

analogy *n* 类推 || The blind acceptance of such *analogies* can be dangerous. 盲目地采纳这种类推法可能有危险。 || *In analogy with* (类似) the results of the kinetic theory of gases, the motion of the molecules of a liquid is related to the temperature. 与气体动力学学说的结果相类似, 液体分子运动也与温度有关。 ◇ **analogous** *adj* 类似 || Liquid-liquid chromatography is closely *analogous* to liquid-liquid extraction. 液-液色谱法与液-液萃取极为相似。

analysis *n* ① 分析 || Sample signals then are compared to the standard signals by using established regression *analysis* procedures. 然后运用已有的回归分析程序, 将样品信号与标准信号加以比较。 || The *analysis of variance* shows that the three elements in the standard rock samples may be considered homogeneous at $F_{0.05}$. 方差分析证明这几个标准样品中的这 3 个元素可以认为在 $F_{0.05}$ 均匀。 ③ 化学分析, 分析操作 || The term

analysis refers to operations on the material or, as proposed recently, the system under study. 分析这个术语指执行于物料(或用新提议的说法,待研究体系)的操作。|| A single *analysis* requires 14—18 min. 一个分析需14—18min。|| Although this problem can be solved, the determination then becomes too complicated for *routine analyses*. 虽然这个问题可以解决,但是作为例行分析,测定变得过于复杂了。③分析结果

|| Results of this titration gave quantitative *analyses* of cerium. 滴定结果给出铈的定量分析数据。|| The ideal formula derived from this *analysis* is $\text{Pb}_3\text{Fe}_2(\text{VO}_4)_2\text{O}_4$ or perhaps $\text{Pb}_3(\text{Fe, Zn})_2(\text{VO}_4)_2\text{O}_4$. 从分析结果求得理想分子式为 $\text{Pb}_3\text{Fe}_2(\text{VO}_4)_2\text{O}_4$ 或可能为 $\text{Pb}_3(\text{Fe, Zn})_2(\text{VO}_4)_2\text{O}_4$

◇ *analytical adj* 分析的 || The added element unavoidably has different *analytical* characteristics from the unknown element. 加入的元素不可避免地具有与未知元素不同的分析特性。|| The *analytical column* used was packed with Polygosil 60—5 C18 (20 cm × 4.6 mm i.d.) and the mobile phase was 85% methanol/15% water. 所用的分析柱用 Polygosil 60—5 C18 填充 (20 cm × 4.6 mm 内径), 移动相为 85% 甲醇/15% 水。# The EDTA wave behaves so erratically at millimolar concentrations that it cannot be used *analytically*. 毫摩尔浓度的 EDTA 波的行为很不规律, 所以不能应用于分析。◇ *analyze v* 分析 (注意 *analyze* 的直接对象是物质或样品, 不是元素, 需要说明待测定元素时, 要加介词 *for*) || Four samples were *analyzed for* boron content in six laboratories by three methods. 由6个实验室用3个方法分析了4个样品, 以测定硼含量。|| The fused sample is dissolved in dilute HNO_3 and *analyzed* by ICP-AES for all ten oxides simultaneously. 经熔融处理后的样品溶于稀 HNO_3 , 用 ICP-AES 分析, 同时测得所有的10个氧化物。

any¹ adj ① 任何(后面的可数名词用单数) || The atomic weight of *any one* isotope is very close to an integer equal to the total number of protons plus neutrons. 任何一种同位素的原子量都极接近质子加中子总数的整数。

|| The determination of P, usually present in the range 0.1—0.5% P_2O_5 , is a necessary part of *any* silicate rock analysis. 在一切硅酸盐岩石分析中, P 的测定都是其中一个必需的部分, 其通常含量范围 0.1—0.5% P_2O_5 。

② (用于否定句及条件从句) 一些 (通常可不译出。后面的可数名词用复数) || *Any* dark, insoluble matter, if present, is oxidized by careful addition of a few drops of concentrated HNO_3 . 如有黑色不溶物, 则小心加数滴浓 HNO_3 将其氧化。◇ *any² pron* (三个以上的) 任何一个

|| No detectable changes in the metal concentrations in *any* of these sam-