

双语教学

英汉生物科学 与工程词典

曹学君 主编

English-Chinese Dictionary of
Bioscience and Bioengineering
for Bilingual Teaching



化学工业出版社

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前 言

当前,高校专业课的双语教学正在逐步推行,并在专业课中要占一定比例,尤其是高新技术专业,双语教学课程要占更大的比重。与此同时,高校的专业英语课也要加强,全面提高学生运用专业英语的能力,以适应全球化的挑战。

编者在生物工程专业英语及双语教学过程中,经常发现许多专业词汇很难查到确切词意,市面的专业英语词汇或词典几乎都没有标注音标。由于专业词汇大多比较长,在没有注音的情况下,往往只是凭过去的发音经验临场发挥,很难正确掌握读音。

基于以上原因,我们编写了这本词典。本词典共收集了生物科学与工程领域较常见的词条 6000 余条,内容涉及发酵工程、生物分离工程、微生物学、生物工程设备、生物反应工程、基因工程、生物化学、动物细胞与组织工程、植物细胞培养、海洋生物工程、微生物药物、酶催化、环境生物工程、生物信息、生物能源、系统生物学、天然产物等领域词汇。医药是生物工程的主要应用领域,本词典也收集了相当数量的与生物工程相关的医药词条,以方便读者查阅。

本词典特色之一是所有词条均标注美语发音音标,方便读者查找及帮助正确发音。有一些词条是根据主要词条衍生出来的,其重复部分不再注音。另外,约有一半的词条加有英文注释,对于正确理解和使用相关词条会有益处。本词典可作为高等院校教师和学生从事生物工程专业英语或专业课程的双语教学过程中使用,也可供研究生和科研院所的专业技术人员或管理人员查找专业词汇使用。

词典在编写过程中，得到了郝六平、邵志华、周立波、宋庆荣、赵红宾等同志的帮助，在此一并表示感谢！

由于编者水平和经验有限，加之时间紧，书中难免有错误及疏漏，恳切希望读者在使用过程中多提宝贵意见。

编者

2006 年 6 月

凡 例

一、收词范围及释义

1. 本词汇收录了在生物科学与工程领域中经常见到的单词或词组，内容涉及发酵工程、生物分离工程、微生物学、生物工程设备、生物反应工程、基因工程、生物化学、动物细胞与组织工程、植物细胞培养、海洋生物工程、微生物药物、酶催化、环境生物工程、生物信息、生物能源、系统生物学、天然产物等，词条共 6000 余条。

2. 单词给出了国际音标和词性。重要的、需要解释的词条给出了简明、准确的英文释义，有利于提高师生在双语教学中对该词条的听、说、读及理解等方面的能力。

3. 释义中不同义项中间用逗号“，”分开。

如：fusant 融合子，融合体。

二、编排及检索

词条按英文字母顺序排列。词条中的阿拉伯数字、符号、空格均不参加排序。

三、符号说明

1. 圆括号 () 表示可省略的内容，如：unipotent (细胞) 单能性的。

2. 方括号 []

① 表示单词的国际音标。如：abioseston ['eɪbiəʊ'sestən] *n.* 非生物浮聚物。

② 表示可替代的部分。如：hyalurate 透明质酸盐 [酯]

四、为方便读者查阅，书后附有中文索引。

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A

aabomycin [ˌæbəˈmaɪsɪn] *n.* 阿博霉素

abaxial [æbˈæksɪəl] *adj.* 轴外的 In botany terminology, it describes a plant part which is on the side or surface of an organ, facing away from the axis.

abiogenesis [ˌaɪbaɪəʊˈdʒenɪsɪs] *n.* 自然发生 The scientific study of how life originally arose on the planet, assumably from nonliving things and the presence of nonliving organic matter.

abioseston [ˌaɪbaɪəʊˈsestən] *n.* 非生物浮聚物

abiotic [aɪbaɪtɪk] *adj.* 非生物的

abrin [ˈeɪbrɪn] *n.* 相思豆毒素

abscisic acid 脱落酸 A lipid hormone which can inhibit cell growth in plants; it is associated with fruit drop, leaf death and seed dormancy. It is synthesized by carotenoids in the plastids.

abscission [æbˈsɪʒən] *n.* 切断, 除去

Absidia [æbˈsɪdɪə] *n.* 犁头霉属

absolute growth curve 绝对生长曲线

absorb [əbˈsɔ:b] *n.* 吸收

absorbance [əbˈsɔ:bəns] *n.* 吸收率

absorption [əbˈsɔ:pʃən] *n.* 吸收

abstraction [æbˈstrækʃən] *n.* 抽提

abzyme [ˈæbzəɪm] *n.* 抗体酶

acacia [əˈkeɪʃə] *n.* 阿拉伯树胶

acceleration phase 加速生长期 A period of increasing growth before the log phase in a culture of microbes.

acceptor [əkˈseptə(r)] *n.* 受体

acceptor RNA 转移 RNA, 受体 RNA

accessory factor 辅助因子

accumulation [əkju:mjuˈleɪʃ(ə)n] *n.* 累积

accumulation culture 富集培养

acellular [eɪˈseljələ] *adj.* 非细胞的

It describes any organism or tissue that is a mass of protoplasm that is not divided into cells, for example, the hyphae of some fungi.

acentric [əˈsentɪk] *adj.* 无中心的

This term denotes a chromosome or chromatid which lacks a centromere.

acetaminophen [ˌæsiˈtæmɪnəfən] *n.* 对乙酰氨基酚 This white compound is known as an fever reducer, but it is also used to make azo dyes and photographic chemicals.

acetic acid 乙酸 It is the most commercially important organic acid and is used to manufacture a wide range of chemical products. It is produced naturally by *Acetobacter*

for making vinegar, but is usually made through synthetic processes.

acetic fermentation 乙酸发酵 *A* fermentation type conducted by microbes in which organic materials are broken down into acetic acid and generate ATP for energy.

aceticin ['æsitin] *n.* 乙酸甘油酯 *A* thick, colorless, water-attracting liquid that is used as a food additive, dye solvent and in leather tanning and explosives manufacture. It is made by heating and distilling a mixture of acetic acid and glycerol.

Acetobacter ['æsitàubæktə] *n.* 醋杆菌属 It is a genus of rod-shaped, flagellated or nonmotile Gram-negative bacteria that oxidize ethanol to acetic acid. These bacteria are usually found on fruits and vegetables.

Acetobacter suboxydans 弱氧化醋杆菌

acetolactate ['æsitàu'lækteit] *n.* 乙酞乳酸

acetylcholine [ə'si:təl'kəulin] *n.* 乙酞胆碱 *A* compound which found in vertebrate neurons that carries information across the synaptic cleft.

acetylcholinesterase

['æsitilkəuli'nestəreis] *n.* 乙酞胆碱酯酶 *An* enzyme that breaks down unused acetylcholine in the synaptic cleft.

acetyl-CoA pathway 乙酞辅酶 A 途径 *A* pathway of autotrophic car-

bon dioxide fixation usually occurred in obligate anaerobes, such as methanogens and sulfate reducing bacteria.

acetyl-coA synthase 乙酞辅酶 A 合成酶

acetyl coenzyme A 乙酞辅酶 A

This coenzyme plays a enormous role in intermediary metabolism, in which cells synthesize, break down or use nutrient molecules for making energy or growth, etc.

acid-fast staining 抗酸染色法

acid fermentation 酸性发酵

acidic amino acid 酸性氨基酸

acidogenic fermentation 产酸发酵

acid proteases 酸蛋白酶 *Any* protein-hydrolyzing enzymes that work best in an acidic solution. Such as stomach enzymes pepsin and rennin.

acidulant [ə'sidjulənt] *n.* 酸化剂

Food additives that are used to impart a sharp flavor. The most common acidulant is citric acid.

Acinetobacter radioresistance 抗辐射不动杆菌

ACP (=acyl carrier protein) 乙酞载体蛋白

acrocentric [ækro'sentrik] *n.* 近端着丝粒 *An* acrocentric chromosome has its centromere closer to one end than to the other, leading into unequal chromosome arms.

actin [æk'tin] *n.* 肌动蛋白

Actinomycetes [ˌæktinəu'maɪ'sɪtɪs] *n.*

放射菌 Gram-positive bacteria which forms branching filaments. It may form true mycelia or produce conidiospores.

actinomycin D [ˌæktinəu'maɪsɪn] *n.*

放射菌素 D A relatively toxic antibiotic produced by the funguslike bacterium *Streptomyces parvulum*. It is often used in conjunction with other drugs in chemotherapy.

actinospectacin [ˌæktinəu'spektəsin] *n.*

奇霉素

activated sludge **活性污泥**

activated sludge process **活性污泥法**

A method of treating sewage and wastewater through microbial oxidation. Sewage previously treated in settling tanks is aerated to encourage the growth of nonpathogenic aerobic microorganisms which break the organic matter down into carbon dioxide, water, and simple salts.

active immunity **自动免疫性** An organism's resistance to disease or infection developed after an infection as the organism's immune system has produced antibodies.

active ingredient **活性成分**

active site **活性部位** A specific region of an enzyme where a substrate binds and be catalyse.

active transport **主动运输** The process of transporting ions, nutri-

ents or other molecules into a cell against a concentration gradient; this needs the energy through ATP hydrolysis.

actomyosin [ˌæktəu'maɪəsɪn] *n.* **肌球蛋白**

acute [ə'kjʊt] *adj.* **急性的** It describe a short-term infection or disease that is characterized by dramatic onset and rapid recovery.

acute toxicity **急性毒性** Illness resulting from a single dose or exposure to a toxic substance.

acyl carrier protein (ACP) **乙酰载体蛋白** A small protein that binds six other enzymes involved in fatty acid synthesis and isolated in *E. coli* bacteria first.

ADA (= adenosine deaminase deficiency) **腺苷脱氨酶缺乏**

adaptation [ˌædæp'teɪʃən] *n.* **适应性**

adaptor [ə'dæptə(r)] *n.* **衔接子**

Short synthetic oligonucleotide strands that have one sticky end and one blunt end; the blunt ends join to the blunt end of a DNA fragment, forming a new fragment with two sticky ends that can be more easily spliced into a vector.

adaxial [æd'æksɪəl] *adj.* **近轴的**

additive genetic variance **相加性遗传方差**

adenine ['ædənɪn] *n.* **腺嘌呤**

adenosine [ə'denəsɪn] *n.* **腺嘌呤核苷**

adenosine deaminase deficiency (ADA)

腺苷脱氨酶缺乏 Inherited disorder resulted from insufficient adenosine deaminase activity, leading into a compromised immune system.

adenosine diphosphate (ADP) 二磷酸腺苷

adenosine triphosphate (ATP) 腺苷三磷酸

adenovirus [ˌædɪnəʊ'vaɪəɹə] *n.* 腺病毒
An icosahedral virus that contains DNA; there are over 40 different adenovirus varieties, some of which can cause the common cold.

adenylate cyclase 腺苷酸环化酶

An enzyme is responsible for catalyzing ATP to form cAMP.

adenylate kinase 腺苷酸激酶

adherence [əd'hɪərəns] *n.* 黏附力

adhering junction 细胞桥粒

adhesion [əd'hɪʒən] *n.* 吸附

adipocyte [ˈædɪpəsaɪt] *n.* 脂肪细胞

adipose tissue 脂肪组织

adoptive immunity 过继性免疫 Immunity to disease or infection conferred on a previously non-immune individual by transferring lymphocytes from a previously immune individual to the non-immune individual.

ADP (= adenosine diphosphate) 二磷酸腺苷

adrenal cortex 肾上腺皮质 This is the outer portion of the adrenal gland; it secretes hormones such as

hydrocortisone and aldosterone.

adrenal hormone 肾上腺素

adrenocorticotrophic hormone 促肾上腺皮质激素

adriamycin [əˌdraɪə'maɪsɪn] *n.* 阿霉素
An antibiotic made by Pharmacia which is used to treat certain types of cancer, such as breast carcinomas.

adsorption fermentation 吸附发酵

adsorption film 吸附膜

adsorption hysteresis 吸附滞后

adsorption layer 吸附层

adsorption precipitation 吸附沉淀

adsorption quantity 吸附量

aeration [ˌeɪə'reɪʃə] *n.* 通风 To add air or oxygen into a liquid.

aerobacter aerogens 产气气杆菌

aerobe [ˈeərəʊb] *n.* 需氧菌 An organism which can or must live in an oxygen-containing environment and uses oxygen as the terminal electron acceptor in respiration.

aerobic [ˈeərəʊbɪk] *a.* 需氧的

aerobic culture 好气培养

aerobic fermentation 氧发酵

aerobic waste treatment 需氧废物处理 The used of aerobic microbes to break down raw sewage.

aerogenic [ˌeərə'dʒenɪk] *a.* 产气的

Aeromonas [ˌeərə'məʊnəs] *n.* 气单胞菌属

aerotaxis [eərə'tæksi] *n.* 趋氧性, 趋气性

aerotolerant [ˌeərə'tələrənt] *adj.* 耐氧

的 Able to survive in the presence of oxygen. This term especially applies to facultative anaerobes, which don't actually need oxygen to live but are not harmed by its presence.

affinity matrix 亲和介质

affinity membrane 亲和膜

affinity precipitation 亲和沉淀

affinity ultrafiltration 亲和超滤

afatoxin [ˌæfləˈtɒksɪn] *n.* 黄曲霉毒素

agar [ˈeɪɡəː] *n.* 琼脂 A gelatinous material derived from certain marine algae. It is used as a base for bacterial culture media and as a stabilizer and thickener in many food products.

agar culture 琼脂培养

agar cup method 琼脂杯法

agar diffusion test 琼脂扩散试验

agar-gel reaction 凝胶反应 The reaction between an antibody and an antigen during an immunology lab procedure where the two are allowed to diffuse toward each other through an agar-gel medium. Lines of precipitation form in the places on the gel where the two react with each other and shows where the reaction has occurred.

agarose [ˈɑːɡəroʊs] *n.* 琼脂糖

agarose gel 琼脂糖凝胶

agarose gel electrophoresis 琼脂糖凝胶电泳

agar plate 琼脂平板

agar plate method 琼脂平板培养法

agar slant 琼脂斜面

agglutination [əˈɡluːtiˈneɪʃən] *n.* 胶合

agglutinin [əˈɡluːtɪnɪn] *n.* 凝集素

agitator [ˈædʒɪteɪtə] *n.* 搅拌器 The device used to stir or shake up a mixture.

Agrobacterium tumefaciens 根瘤土壤杆菌

airlift bioreactor 生物反应器

airlift fermentation 气升式发酵

ajmalicine [æməˈlɪsɪn] *n.* 阿吗碱

alanine [ˈæləˌniːn] *n.* 丙氨酸

albumin [ælˈbjuːmɪn] *n.* 清蛋白, 白蛋白 A heat-coagulatable, water-soluble globular protein found in egg white, blood plasma and many other plant and animal tissues.

albuminuria [ælˌbjuːmɪˈnjuəriə] *n.* 蛋白尿 In the urine, more than normal amounts of a protein called albumin.

Alcaligenes latus 产气杆菌

aldolase [ˈældəˌleɪs] *n.* 醛缩酶 In glycolysis, it is responsible for cleaving fructose 1, 6-bisphosphate into two 3-carbon molecules, dihydroxyacetone and glyceraldehyde 3-phosphate.

aldosterone [ælˈdɒstəroʊn] *n.* 醛甾酮, 醛固酮

algae [ˈældʒiː] *n.* 藻类

algin [ˈældʒɪn] *n.* 褐藻酸 This gelatinous material, a polysaccharide extract from brown algae, is

widely used in foods, medicines, and industrial and household products.

alkaline medium 碱性培养基

alkaline phosphatase 碱性磷酸(酯)酶

alkaline proteases 碱性蛋白酶

These proteases work best in the pH range of 8 to 11 and are used widely in washing powders and to de-hair hides.

alkaloid [æ'kælɔɪd] *n.* 生物碱 Any of various organic compounds normally with basic chemical properties and usually containing at least one nitrogen atom in a heterocyclic ring, occurring chiefly in many vascular plants and some fungi.

allantoin [æ'læntɔɪn] *n.* 尿囊素 Any of many nitrogen-containing organic compounds that are found in the urine of some mammals and in some plants.

allergen ['ælədʒən] *n.* 过敏原 Something that cause an allergic reaction.

allergy ['ælədʒi] *n.* 变态反应 A harmful immune reaction, either immediate-type or delayed-type hypersensitivity caused by a foreign antigen in food, pollen, or chemicals.

alliin ['æliɪn] *n.* 蒜氨酸, 蒜碱

alloimmune [æləui'mju:n] *adj.* 同种

免疫的 It indicates an organism's being immune to proteins, cells, or other antigens from members of its own species.

allopurinol [ˌælə'pjʊrɪnəl] *n.* 别嘌呤醇

allosteric enzyme 变构(象)酶 A regulatory enzyme whose activity is modified by the noncovalent binding of a particular metabolite at a site other than the active site.

alpha amanitin α-蝇蕈素

alpha amylase α-淀粉酶

alpha fetoglobulin 甲胎蛋白

alpha glucosidase α-葡(萄)糖苷酶

alpha helix α-螺旋

alpha interferon α-干扰素

alpha keratin α-角蛋白

alpha viruses α-病毒

amandin [ˈɑ:mənɪdɪn] *n.* 苦杏仁球蛋白

amber codon 琥珀密码子 The non-sense codon UAG, signals that the translation of mRNA into a chain of amino acids should stop.

amber mutation 琥珀突变 A mutation from a codon which codes for an amino acid into the amber codon UAG, which normally signals that the translation of mRNA into an amino acid chain should stop. The mutation causes the amino acid chain to terminate before it is actually completed.

amber suppressor 琥珀校正基因 A

tRNA molecule which suppresses amber mutations because it has mutated to recognize the amber codon UAG. As a result, it can prevent the amino acid chain from stopping before it is completed.

ambiguous codon 双关密码子

amboceptor ['æmbə'septə] *n.* 溶血素

An antibody that can combine both with a cellular antigen and with a complement as it has two combining elements.

ameba [ə'mi:bə] *n.* 变形虫

ameiosis [æmi:'osis] *n.* 非减数分裂

A form of nuclear division that does not reduce the number of chromosomes.

amethopterin [ə'meθəp'terɪn] *n.* 氨甲喋呤

amidase ['æmideɪs] *n.* 酰胺酶

amidinase ['æmidneɪs] *n.* 脒基酶

amidinotransferase [æmidinəu'tʃænsfereɪs] *n.* 转脒基酶

aminoacylase [ə'mi:nəu'æsileɪs] *n.* 氨基酸酰化酶

aminoacyl tRNA 氨酰 tRNA The name of the complex created when a tRNA molecule is attached to its specific amino acid and ready to participate in protein synthesis.

aminoglycoside antibiotics 氨基糖苷类抗生素 A group of antibacterial drugs which are mostly produced by fungi and which contain an amino sugar, and amino-or guanido-sub-

stituted inositol ring, and other sugar residues. They are all broad-spectrum antibiotics which can inhibit bacterial protein synthesis by binding to their ribosomes.

aminopeptidase [ə'mi:nə'peptideɪs] *n.*

氨基肽酶 This is an enzyme which sequentially cuts the peptide bonds from the N-terminus of a chain of polypeptides.

aminophylline [ə'mi:nəu'fili:n] *n.* 氨茶碱

aminopterin [æmi'nɒptərɪn] *n.* 氨基喋呤

amino resin 氨基树脂

amino sugar 氨基糖 A monosaccharide in which one or more of its hydroxyl groups has been substituted with an amino group.

amino terminal 氨基末端 The end of a polypeptide chain with the unattached amino group.

amino terminal residue 氨基末端残基 The only amino acid residue in a polypeptide chain which has a free alpha-amino group.

aminotransferase [ə'mi:nəu'trænsfə'reɪs] *n.* 转氨酶

amphotericin [æmfə'terəsɪn] *n.* 两性霉素

ampicillin [æmpi'silin] *n.* 氨苄青霉素

amplicon ['æmplikən] *n.* 复制子 A term for any small, replicating DNA fragment.

amplification [ˌæmplifiˈkeɪʃən] *n.* 放大作用 An increase in the number of copies of a specific DNA fragment; It can be completed in vivo or in vitro.

Amycolatopsis orientalis 东方拟无枝酸菌

amylase [ˈæməˌleɪs] *n.* 淀粉酶 It is secreted by the acinar cells of the pancreas and is measured from blood samples.

amylin [ˈæmilin] *n.* 糊精

amylit [ˈæmilit] *n.* 麦芽糖化酶

amyl cellulose [ˌæmiləuˈseljələʊs] *n.* 直链淀粉

amyl glucosidase [ˌæmiləuˌglukəʊiˈsaɪdeɪs] *n.* 淀粉葡萄糖苷酶

amylolysis [ˌæmiləuˌhaɪˈdrəʊlɪsɪs] *n.* 淀粉水解

amylomaltose [ˌæmiləˈmɔːltəʊs] *n.* 麦芽糖

amylon [əˈæmilən] *n.* 淀粉

amylpectin [ˌæmiləuˈpektɪn] *n.* 支链淀粉

amylose [ˈæmələʊs] *n.* 直链淀粉, 多糖 One of two types of glucose polymers that together make up starch. Amylose is the portion of starch that is soluble in water.

amyltal [ˈæmitəl] *n.* 阿米妥

anabolic [əˈnæbəˌlɪk] *adj.* 合成代谢的

anabolic pathway 合成代谢途径 A reaction or series of reactions in a metabolic pathway which synthesize complex molecules from simpler

ones, usually needing the input of energy.

anabolism [əˈnæbəˌlɪzəm] *n.* 合成代谢

A stage of intermediary metabolism in which cell components are synthesized from smaller precursor molecules; It is a process that requires energy.

anaerobe [æˈneɪəəʊb] *n.* 厌氧性生物

A microorganism that either does not require oxygen or actually cannot live in the presence of oxygen.

anaerobic [ˌæneɪəˈrəʊbɪk] *adj.* 厌氧性的 Relating to a process that occurs with little or no oxygen present.

anaerobic digester 厌氧生物反应器

It is a bioreactor for anaerobically digesting sewage-laced wastewater.

anaerobic respiration 厌氧呼吸

anaerobiosis [ˌæneəəʊbaɪˈəʊsɪs] *n.* 缺氧生活

anaphase [ˈænəˌfeɪz] *n.* 后期 The stage of mitosis and meiosis in which the chromosomes move to opposite ends of the nuclear spindle.

anaphylactic shock 过敏性休克

anaphylatoxin [ˌænəˌfɪləˈtɒksɪn] *n.* 过敏毒素

anaplerotic reaction 添补反应 An enzyme-catalyzed chemical reaction which can recharge the supply of intermediate molecules in various metabolic reactions such as the cit-

ric acid cycle.

anastomosis [ˌænəstə'məʊsɪs] *n.* 接合, 相接

anchorage-independent cell 非贴壁依赖性细胞

aneuploid [ˌænjuploɪd] *n.* 非整倍单倍体 It describes a cell or organism that has an abnormal total number of chromosomes and where numbers of individual chromosomes are out of proportion with the numbers of the other chromosomes.

aneurin [ˌænjuəɪn] *n.* 维生素 B₁

angiotensin [ˌændʒiəʊ'tensɪn] *n.* 血管收缩素

animal cell culture 动物细胞培养

Mammalian cells are fragile and harder to grow than other cell types, but their large-scale culturing is an economic boon because it allows for the production of proteins which are otherwise difficult or expensive to extract from living organisms.

animal pigment 动物色素

animal tissue cultivation 动物组织培养

anisotropic membrane 各向异性膜

This type of synthetic membrane has an asymmetric pore structure: a thin film with tight pores backed by a thicker film with wider pores.

This type of membrane is used for ultrafiltration and reverse osmosis.

ankyrin [ˌæŋkɪrɪn] *n.* 锚蛋白

anneal [ə'ni:l] *n.* 复性 The pairing of complementary DNA or RNA sequences, via hydrogen bonding, to form a double-stranded molecule.

annular ['ænjulə] *adj.* 环形的

anoxic culture 无氧培养

anoxic reactor 厌氧反应器

anoxybiosis [æˌnɒksəbaɪ'əʊsɪs] *n.* 缺氧生活

anoxygenic photosynthesis 不产氧光合作用

antacids [æn'tækɪdɪz] *n.* 抗酸剂

antagonism [æn'tæɡənɪzəm] *n.* 对抗性 An interaction between chemicals in which one partially or completely inhibits the effect of the other.

antagonistic effect 对抗效应, 反协同效应

anthrax toxin 炭疽毒素

antiandrogen [ˌænti'ændrədʒɪn] *n.* 抗雄激素物质 A substance that interferes with the function of an androgen, or male sex hormone, by taking over the androgen's receptors.

antibiosis [ˌæntɪbaɪ'əʊsɪs] *n.* 抗生现象 A relationship between two species in which one species is actively harmed.

antibiotic [ˌæntɪbaɪ'ɒtɪk] *n.* 抗生素

antibiotic fermentation 抗生素发酵

antibiotic resistance 抗生素抗性

The ability of a bacterium to synthesize a protein that neutralizes an antibiotic.

antibiotic resistance genes 抗生素抗性基因 Genes in a microorganism that confer resistance to antibiotics, for example by coding for enzymes which destroy it, by coding for surface proteins which prevent it from entering the microorganism.

antibody [ˌæntɪbaɪ'ɒtɪk] *n.* 抗体

antibody technology 抗体技术

anticholinesterase [ˌæntɪkəuli'nestəreɪs] *n.* 抗胆碱酯酶 An agent, such as nerve gas, that blocks nerve impulses by inhibiting the activity of the enzyme cholinesterase.

anticipatory control 前馈控制 The regulation of a system or process based on anticipated events; this is a feed-forward rather than a feedback system.

anticoagulant [ˌæntikəu'ægjələnt] *n.* 抗凝血剂

anticodon [ˌæntɪ'kəʊdɒn] *n.* 反密码子 A specific sequence of three nucleotides in transfer RNA that are complementary to a codon for a specific amino acid in a messenger RNA.

antienzyme [ˌæntɪ'enzaɪm] *n.* 抗酵素 A protein or polypeptide that can inhibit or destroy an enzyme.

antifertility [ˌæntɪfə'tɪlɪtɪ] *a.* 抗生育的

antifoam agent 消沫剂

antifreeze protein 防冻蛋白 It is a protein found in the extracellular fluid of some fish which live in very

cold water.

antifungicide [æntɪ'fʌŋɡɪsaɪd] *n.* 杀真菌剂

antigen [ˌæntɪdʒən] *n.* 抗原

antigenic determinant 抗原决定簇, 抗原原子 A molecule on the surface of a microbe or macromolecule which can cause an immune response.

antigenicity [ˌæntɪdʒə'nɪsɪtɪ] *n.* 抗原性

antigenic variation 抗原变异 A change in the structure of an antigen on the surface of a disease-causing microorganism or virus thus the host's immune system no longer recognizes the pathogen.

antihistamine [ˌæntɪ'hɪstəmi(:)n] *n.* 抗组胺剂

antimicrobial [ˌæntɪmaɪ'krəubiəl] *adj.* 抗菌的 Harmful to microorganisms by either killing them or inhibiting their growth.

antimycin A 抗霉素 A

antimycotics [ˌæntɪmaɪ'kɒtɪks] *n.* 抗真菌剂

antinuclear antibody 抗核抗体 It is an antibody against nuclear materials such as DNA, RNA, histone or non-histone proteins.

antiport [ˌæntɪpɒt] *n.* 反向运输 The cotransport of two molecules across a membrane in opposite directions.

antisense RNA 反义 RNA A complementary RNA sequence that binds to a naturally-occurring mes-