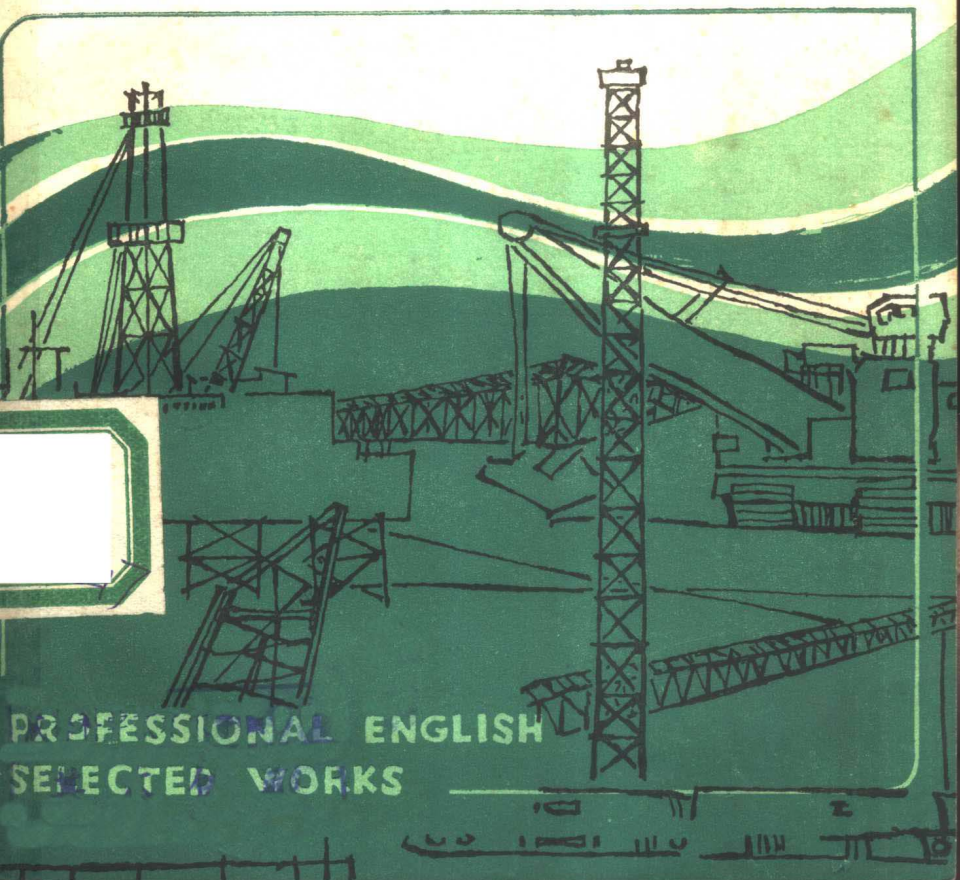


专业英语文选

上册

地质专业

英语大选



PROFESSIONAL ENGLISH  
SELECTED WORKS

# 地质专业英语文选

上册

南京大学外文系公共英语教研室编

商务印书馆

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南京大学外文系公共英语教研室编

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## 前 言

在实现科学技术现代化的伟大斗争中，外语是广大群众迫切需要掌握的工具之一，本书就是为了适应这种形势，帮助有关人员提高阅读地质专业英语书刊的能力而编写的。

本书的读者对象是有英语基础知识的地质系学生和有相当英语程度的地质工作人员。

全书分上下两册，各三十课，内容由浅入深，由短而长，以利读者循序渐进地学习。每课除正文外，附有词汇，词组和注释，帮助读者在自学中掌握和巩固学到的词汇和语法。此外，书末附有各课的译文。这里要特别说明的是：译文仅供读者在理解原文遇到困难或不大有把握时翻阅参考。使用本书的读者不宜完全依赖译文学习地质科学，更不宜据此逐句进行英汉对比，练习翻译。要掌握翻译技巧，必须通过阅读较大量的语言材料，加深感性知识，扩大词汇量，特别要观察语法在实际语言中的运用，逐步提高自己独立阅读专业参考书的能力，才能收到预期的效果。

本书的材料多半选自新近出版的美英地质学参考书，有时略加删节或改写。选材范围较广，内容尽可能包括地质学科中各专业的一般知识，这样词汇的面可以比较全面，语法现象和文体类别也比较丰富多样。

本书由孙淑强、徐丽卿编写，定稿后由我系张景桂先生审

阅全书,地质系张永轲先生校订译稿。本书在编写过程中,我校地质系有关教师和部份学生提供许多宝贵意见,协助选择材料,做了不少工作,这是我们应特别表示感谢的。

由于编者的专业知识和语言水平的限制,本书一定还存在不少的缺点和错误,希望读者在使用的过程中,把发现的问题和改进的意见随时提出来,使本书得以不断修正和充实。

南京大学外文系公共英语教研室

## 语法略语表

<i>a.</i>	... adjective	形容词
<i>ad.</i>	... adverb	副词
<i>conj.</i>	... conjunction	连接词
<i>n.</i>	... noun	名词
<i>prep.</i>	... preposition	介词(前置词)
<i>pron.</i>	... pronoun	代词
<i>v.i.</i>	... verb intransitive	不及物动词
<i>v.t.</i>	... verb transitive	及物动词

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## 1. GEOLOGY

Geology is a natural science. With it men can discover all kinds of useful minerals.

Geology studies the earth. But of the three spheres, the atmosphere, the hydrosphere and the lithosphere, it only directly studies the lithosphere.① It studies the composition and distribution of material in the earth's crust. It studies also the formation, changes and development of rocks and minerals in the earth's crust.

Geology is a very complex science. There are many branches in geology. Mineralogy is the science of the minerals. Petrology is the science of the rocks. Geomorphology deals with the origin of landscapes and changes in them.② Historical geology traces the evolution and development of the earth and of the animals and plants on it.③ Stratigraphy studies the sequence of the rocks in the earth's crust. Paleontology deals with the ancient animals and plants. These are just a few of the most important branches of geology.

Geology is a very important science. We depend upon geology for the discovery of mineral deposits needed by the various industries④ A lot of minerals are used as fuel and raw materials.⑤ Without them industrialization is impossible. Minerals are also used as fertilizers in agriculture. China is very rich in mineral deposits of all kinds. The study of geology will help us to discover them to serve our socialist construction.

## 词 汇

**geology** [dʒi'ɒlədʒi] *n.* 地质学, 地质  
**natural** ['nætʃrəl] *a.* 自然的  
**with** [wið] *prep.* 用  
**science** ['saɪəns] *n.* 科学  
**weapon** ['wepən] *n.* 武器  
**discover** [dis'kʌvə] *v.t.* 发现  
**mineral** ['mɪnərəl] *n.* 矿物  
**sphere** [sfɪə] *n.* 圈, 区域  
**atmosphere** ['ætməsfiə] *n.* 大气圈  
**hydrosphere** ['haɪdrəsfiə] *n.* 水圈  
**lithosphere** ['liθəsfiə] *n.* 岩石圈  
**directly** [di'rektli] *ad.* 直接地  
**composition** [,kɒmpə'zɪʃən] *n.* 组成, 成分  
**distribution** [,dɪstri'bju:ʃən] *n.* 分布, 分配  
**crust** [krʌst] *n.* 地壳  
**formation** [fɔ:'meɪʃən] *n.* 生成, 岩层  
**complex** ['kɒmpleks] *a.* 复杂的  
**branch** [brɑ:ntʃ] *n.* 分科, 部门  
**mineralogy** [,mɪnə'rælədʒi] *n.* 矿物学  
**petrology** [pi'trɒlədʒi] *n.* 岩石学  
**geomorphology** [,dʒiəmə:'fɒlədʒi] *n.* 地貌学  
**deal** [di:l] *vi.* 处理, 从事  
**origin** ['ɒrɪdʒɪn] *n.* 起源, 成因  
**landscape** ['lændskeɪp] *n.* 地形

**historical** [hɪs'tɒrɪkəl] *a.* 历史的  
**trace** [treɪs] *v.t.* 探讨, 追踪  
**evolution** [i:və'lu:ʃən] *n.* 进化, 演变  
**animal** ['æniməl] *n.* 动物  
**plant** [plɑ:nt] *n.* 植物  
**stratigraphy** [strə'tɪgrəfi] *n.* 地层学  
**sequence** ['si:kwəns] *n.* 层序, 次序  
**paleontology** [ˌpæliən'tɒlədʒi] *n.* 古生物学  
**ancient** ['eɪnfənt] *a.* 古代的  
**depend** [di'pend] *v.t.* 依靠  
**discovery** [dis'kʌvəri] *n.* 发现  
**deposit** [di'pɒzɪt] *n.* 矿床, 沉积  
**need** [ni:d] *v.t.* 需要  
**various** ['veəriəs] *a.* 各种的  
**fuel** [fjuəl] *n.* 燃料  
**raw** [rɔ:] *a.* 未加工的, 生的  
**industrialization** [ɪnˌdʌstriəl'aɪ'zeɪʃən] *n.* 工业化  
**impossible** [ɪm'pɒsəbl] *a.* 不可能的, 办不到的  
**fertilizer** ['fɜ:tilaɪzə] *n.* 肥料  
**rich** [rɪtʃ] *a.* 丰富的  
**geological** [ˌdʒiə'lɒdʒɪkəl] *a.* 地质的

## 词 组

*all kinds of* 各种各样的  
*(to) deal with* 处理, 研究  
*a few of* 几个, 少数的  
*(to) depend upon* 依靠, 取决于

*a lot of* 许多  
*(to be) rich in* 富于...的  
*of all kinds* 各种各样的

## 注 释

1. But of the three spheres, the atmosphere, the hydrosphere and the lithosphere, it only directly studies the lithosphere.

句中的介词 of 表示部份与整体的关系, 作“在...中”解. the atmosphere ... the lithosphere 是 the three spheres 的同位语. 主语 it 代 geology.

2. in them 是作定语用的介词短语, 修饰 changes, 其中的 them 代 landscapes.

3. Historical geology traces the evolution and development of the earth and of the animals and plants on it.

句中的 the evolution and development 是 traces 的宾语, 它有两个介词短语作其定语, 即 of the earth 和 of the animals and plants on it. it 代 the earth.

4. We depend upon geology for the discovery of mineral deposits needed by the various industries.

句中介词短语 for ... industries 作目的状语, 其中的 needed ... industries 是过去分词短语作定语, 修饰 mineral deposits.

5. as fuel and raw materials 这一短语在意义上说明句子前面的主语 minerals, 也可解释为主语补足语. as 作“作为”解.

## 2. THE EARTH

Geology studies the earth. The earth is a very large spherical body. From the geological point of view the earth consists of three spheres. We call these spheres the atmosphere, the hydrosphere and the lithosphere. These three spheres are of very different nature.①

The atmosphere is a continuous layer of gases. It surrounds the whole globe. The hydrosphere includes all the surface water of the globe. It is discontinuous. Some parts of it, such as the inland seas and some lakes, are entirely disconnected from the other parts. The lithosphere is the solid earth.

The three spheres are very closely connected among themselves. Materials are constantly being transferred from one sphere to another.② For example, the exposed water surfaces are constantly undergoing evaporation. Water is thus transferred from the hydrosphere to the atmosphere. Water is also being constantly transferred from the atmosphere to the hydrosphere by rain, snow, hail and dew.

Water is a solvent for some constituents of the rocks in the lithosphere.③ These dissolved materials thus pass from the lithosphere to the hydrosphere. There is also direct transference between the atmosphere and the lithosphere in certain chemical actions and during volcanic eruptions.④

### 词 汇

spherical ['sferikel] *a.* 球形的

point [point] *n.* 点

**view** [vju:] *n.* 见解, 观点  
**consist** [kən'sist] *v.i.* 包括  
**different** ['difrənt] *a.* 不同的  
**nature** ['neɪtʃə] *n.* 性质  
**continuous** [kən'tɪnjuəs] *a.* 连续的  
**layer** [leɪə] *n.* 层  
**gas** [gæs] *n.* 气体  
**surround** [sə'raʊnd] *v.t.* 包围  
**whole** [həʊl] *a.* 整个(的), 全部(的)  
**globe** [gləʊb] *n.* 球体  
**include** [ɪn'klud] *v.t.* 包括  
**surface** ['sɜ:fɪs] *n.* 表面  
**discontinuous** [ˌdɪskən'tɪnjuəs] *a.*  
 不连续的  
**inland** ['ɪnlənd] *n.* 内陆  
**sea** [si:] *n.* 海  
**lake** [leɪk] *n.* 湖  
**entirely** [ɪn'taɪəli] *ad.* 完全地  
**disconnected** [ˌdɪskə'nektɪd] *a.* 不  
 连接的  
**solid** ['sɒlɪd] *n.* 固体  
**closely** ['kləʊsli] *ad.* 密切地  
**connect** [kə'nekt] *v.t.* 连接

**material** [mə'tɪəriəl] *n.* 物质, 材料  
**constantly** ['kɒnstəntli] *ad.* 经常地  
**transfer** [træns'fə] *v.t.* 传送, 转移  
**example** [ɪg'zɑ:mpəl] *n.* 例证, 实例  
**exposed** [ɪks'pəʊzd] *a.* 暴露的  
**undergo** [ˌʌndə'geʊ] *v.t.* 经历  
 (underwent, undergone)  
**evaporation** [ɪˌvæpə'reɪʃən] *n.* 蒸发  
**thus** [ðəs] *ad.* 因此, 这样  
**snow** [snəʊ] *n.* 雪  
**hail** [heɪl] *n.* 雹  
**dew** [dju:] *n.* 露  
**solvent** ['sɒlvənt] *n.* 溶剂  
**constituent** [kən'stɪtjuənt] *n.* 成分  
**dissolved** [dɪ'zɒlvd] *a.* 溶化了的  
**pass** [pɑ:s] *v.i.* 经过, 转移  
**transference** ['trænsfərəns] *n.* 传  
 送, 运送  
**certain** ['sɜ:tin] *a.* 某些, 某一  
**action** ['ækʃən] *n.* 作用  
**volcanic** [vɒl'kænik] *a.* 火山的  
**eruption** [ɪ'rʌpʃən] *n.* 喷发

## 词 组

*point of view* 观点  
*(to) consist of* 由...组成  
*such as* 如, 像...那样的

*(to be) disconnected from* 与...不  
 相连接  
*for example* 例如

## 注 释

1. These three spheres are of very different nature.

句中介词短语 of very different nature 作表语。“be+of+名词”可表示“具有什么特点或性质”, 因此, are of very different nature 就是“具有很不相同的性质”。

2. Materials are constantly being transferred from one sphere to another.

这句的谓语动词 are being transferred 是被动语态的现在进行时态, 表示这一动作目前还在继续.

3. for some constituents of the rocks in the lithosphere 是修饰 solvent 的定语.
4. There is also direct transference between the atmosphere and the lithosphere in certain chemical actions and during volcanic eruptions. 这是用 there 引导的句子, 结构是倒装的, 动词 is 在前, 主语 transference 在后, 从 between 开始到句末是状语. “there+be+主语+状语”的句型表示“某处(或某时)存在某人(或某物. 某事)”.

### 3. THE LAND SURFACE

The surface of the continents possesses a great variety of forms. Rocks and soils, as well as mountains, valleys and plains, differ greatly from place to place.

Mountain ranges are characteristic of the continents. But mountain ranges occasionally rise from the sea bottom and show their crests above the surface.

The land surface has many different kinds of weather and climate. Heavy rains are followed by clear sky; strong winds, by light winds or calms.<sup>①</sup> A bare desert surface in the torrid zone may be heated at noon above  $130^{\circ}$ , and may cool nearly to freezing the next night.<sup>②</sup> In the frigid zone the frozen soil may warm and thaw at the surface during summer, but it will be frozen again, even to  $80^{\circ}$  below zero, the next winter.

Variations of temperature rapidly decrease underground. At a depth of four or five feet daily changes are hardly perceptible. At a depth of twenty or thirty feet there is but little variation from the mean temperature of the year (about  $80^{\circ}$  in the torrid zone, near zero in far northern lands).

The rock of the earth's crust in the lands is of great service in building and road making.<sup>③</sup> Clay is burned to make bricks, used in building and street paving.<sup>④</sup> Limestone is heated to produce lime. Coal and rock oil, or petroleum, are of great value as fuels. The ores of many metals are used in industry and our daily life.

## 词 汇

land [lænd] *n.* 陆地  
 possess [pə'zes] *v.t.* 具有, 占有  
 variety [və'raɪəti] *n.* 多样性, 种类  
 mountain ['maʊntɪn] *n.* 山  
 valley ['væli] *n.* 山谷  
 plain [pleɪn] *n.* 平原  
 differ ['dɪfə] *v.i.* 不同, 差别  
 range [reɪndʒ] *n.* 山脉  
 characteristic [ˌkærɪktə'rɪstɪk] *a.*

特有的

occasionally [ə'keɪznəli] *ad.* 偶而  
 bottom ['bɒtəm] *n.* 底  
 show [ʃəʊ] *v.t.* 显示, 露出  
 crest [krest] *n.* 顶部, 山顶  
 weather ['weðə] *n.* 天气  
 climate ['klaɪmɪt] *n.* 气候  
 heavy ['hevi] *a.* 大的, 重的  
 light [laɪt] *a.* 轻微的, 轻的  
 calm [kɑ:m] *n.* 静寂  
 bare [beə] *a.* 光秃的  
 desert ['dezət] *n.* 沙漠, 荒地  
 torrid zone ['tɒrɪd 'zəʊn] *n.* 热带  
 noon [nu:n] *n.* 正午  
 cool [ku:l] *v.i.* 变冷  
 nearly ['niəli] *ad.* 几乎  
 freezing ['fri:zɪŋ] *n.* 冻结  
 frigid zone ['frɪdʒɪd 'zəʊn] *n.* 寒带  
 frozen ['frəʊzn] *a.* 冻结的

thaw [θɔ:] *v.i.* 融化  
 variation [ˌveəri'eɪʃən] *n.* 差别, 变化  
 decrease [di'kri:s] *v.i.* 减少  
 underground [ˌʌndəgraʊnd] *ad. &*  
*a.* 在地下, 地下的  
 depth [depθ] *n.* 深度  
 feet [fi:t] *n.* 英尺, 脚 (foot 的复数)

hardly ['hɑ:dlɪ] *ad.* 几乎不  
 perceptible [pə'septəbl] *a.* 觉察, 可感知的

but [bʌt] *ad.* 只, 仅仅  
 mean [mi:n] *a.* 平均的  
 service ['sɜ:vis] *n.* 用处  
 clay [kleɪ] *n.* 粘土  
 burn [bɜ:n] *v.t.* 燃烧  
 brick [brɪk] *n.* 砖  
 paving ['peɪvɪŋ] *n.* 铺设  
 limestone ['leɪmstəʊn] *n.* 石灰石  
 lime [laɪm] *n.* 石灰  
 oil [ɔɪl] *n.* 油  
 petroleum [pi'treʊljəm] *n.* 石油  
 value ['vælju:] *n.* 价值  
 fuel [fjuəl] *n.* 燃料  
 ore [ɔ:] *n.* 矿石  
 metal ['metl] *n.* 金属

## 词 组

a great variety of 多种的  
 as well as 以及, 和  
 from place to place 各地, 到处

(to be) characteristic of 能表明...  
 的特征  
 at noon 在中午



## 注 释

1. Heavy rains are followed by clear sky; strong winds, by light winds or calms. 分号后面的句子是省略句, 其谓语部份与分号前面句子的谓语相同, 故省略, 以免重复, 补全了应是 strong winds are followed by light winds or calms.
2. the next night 中的 next 为 following (随后的)文意. the next night 系针对 at noon 而言, 是“到了晚上”的意思, 而非“第二天晚上”. 下文中的 the next winter 也是同样的情况.
3. The rock of the earth's crust in the lands is of great service in building and road making.  
这句里的介词短语 of great service 作表语用. “be+of+名词”表示“具有什么特点或性质”, 因此, is of great service 作“有很大用处”解, 下文中的 are of great value 则是“有极大价值”.
4. Clay is burned to make bricks, used in building and street paving.  
这句中, 不定式短语 to make bricks 是修饰谓语动词 is burned 的目的状语. used ... paving 则是过去分词短语, 作定语用, 修饰 bricks.