

820557

(英汉对照)

950-721

7210

950-721

7210

英语外台VOA 最新科技节目选

刘平章 柏馨久 陆秋成 译

成都科技大学出版社

(英汉对照)

英语外台 VOA
最新科技节目选

刘平章 柏馨久 陆秋成

成都科技大学出版社

内 容 简 介

本书取材于美国之音的“特别英语节目”近年来播送的科技短文，精选出其中的三十篇整理而成。全书题材新颖、内容丰富，涉及天文、太空、地理、医学、计算机、生物工程等各个方面，反映了美国科技领域的新成就和新动态。

本书语言通俗、文字精炼。为了便于阅读，采用英汉对照形式。每篇正文后附有生词、注释和参考译文。

全书洋溢着知识性、科学性和趣味性，既有利于开阅读者视野，又有助于培养独立阅读能力。

本书可供大专院校学生、电大生、职大生、函大生、中学高年级学生及英语自学者阅读学习。

英语外台VOA最新科技节目选

刘平章 柏馨久 陆秋成

成都科技大学出版社出版

四川省新华书店发行

成都大丰南家印刷厂印刷

开本787×1092毫米 1/32 印 张 5

1987年2月第1版 1987年2月第1次印刷

字数 108 千字 印数 1—14000

ISBN7-5616-0012-7/G·4

统一书号：7475·5 定价：1.40元

目 录

Contents

1. International Cometary Explorer (1)
国际彗星探索器
2. The Space Factory (6)
太空工厂
3. Experiments on the Space Shuttle ... (11)
宇宙飞船上的实验
4. Space Telescopes..... (16)
宇宙望远镜
5. The World Largest Light-gathering
Telescope..... (21)
世界上最大的聚光望远镜
6. Interests in New Kinds of Airships..... (26)
令人感兴趣的新型飞艇
7. Ocean Thermo-energy System..... (31)
海洋热能系统
8. The Deepest Growing Ocean Plant..... (36)
深海植物
9. The Electro-cell-fusion Technique (41)
电—细胞融合技术
10. A New Way to Make Glass (47)

制造玻璃的新方法

11. A Low-cost Way to Make Diamond (52)
廉价制造金刚石的方法
12. Hydroponics (57)
水栽法
13. Food as a Treatment..... (62)
食物疗法
14. A Low-salt Soy Sauce ... (68)
低盐酱油
15. Cigarette Smoking (73)
吸 烟
16. A Sweatness Test for Fruits and
Vegetables..... (78)
测试水果和蔬菜的甜味
17. Pets..... (83)
有益于健康的小动物
18. Interferon..... (88)
干扰素
19. Stress (94)
精神紧张
20. Flourescent Lights and Skin Cancer ... (99)
日光灯与皮肤癌
21. Preventing Juvenile Diabetes..... (104)
预防少年糖尿病
22. Artificial Skin, Blood Vessels and Blood... (109)
人造皮肤、人造血管和人造血液

23. A Solar Box Cooker..... (114)
一种箱式太阳灶
24. Production of Low Cost Solar Energy ... (119)
生产廉价的太阳能
25. Computer Helps Find the Best Program
for Mixing Plants (124)
计算机优选套种的最佳方案
26. A Big Mistake Made by the Computer
System (129)
计算机系统的一大失误
27. Earthquake Warning System (134)
地震预警系统
28. Usable Garbage (139)
可利用的垃圾
29. Ambers..... (144)
珀 琥
30. Hibernation (150)
冬眠作用

1. International Cometary Explorer

An American spacecraft will be the first man-made object to fly past a comet. The spacecraft, the International Cometary Explorer, will fly Wednesday after the comet Jacobinizer. For the first time scientists on earth will be able to make a close and detailed study of a comet. Scientists want to study comets because they may be the oldest objects in our solar system, older than their planets and their moon. Scientists believe such a study will help us better understand how the solar system was formed.

Scientists say there may be about one hundred thousand million⁽¹⁾ comets in our solar system. Generally, they look like a giant ball of fire. However, the center probably is mostly ice and dust, often no more than one kilometre across. A tail of dust and gas may stretch millions of kilometres across the sky.

The International Cometary Explorer was launched in 1978 to measure the solar wind particles.

• 1 •

that flow from the sun toward earth. Three years ago scientists fired the spacecraft's small rocket. This moved it out of orbit and made it into the path-flight to meet the Jacobinizer comet. The spacecraft did not have enough fuel for such a long trip, however. So scientists first moved it into an orbit around the moon.

The Moon's gravity acted like a giant sling shot. It changed the spacecraft's direction and set it on a new path deep in the space. On Wednesday, the spacecraft will be 17 million kilometres from earth. It will fly to the comet's tail about 10 thousand kilometres from the comet. ⁽²⁾

The spacecraft can not take pictures of the comet because it does not have a camera. But the spacecraft's instrumets will make detailed studies of the particles and gases and their electric and magnetic forces in the comet's tail. Scientists will be receiving their first direct measurements of the material that flies off a comet as it moves toward the sun ⁽³⁾.

The American scientists say they will share their information with other experts who are studying a more famous comet—Halley's. Halley's comet also is returning to our area of the solar system. Spacecraft from Japan, the Soviet Union and the European Space Agency will fly past Halley's comet in March of next year.

New Words and Phrases

comet	['kɒmɪt]	n.	彗星
detail	['di:teɪl]	n.v	细节; 详尽
giant	[dʒaɪənt]	a.	巨大的
stretch	['stretʃ]	v.	延伸
camera	['kæməɾə]	n.	照相机
sling shot			弹弓
Halley's Comet			哈雷彗星

Notes

- (1) One hundred thousand million 即 one hundred billion 一十亿
- (2) It will fly to the comet's tail about 10

thousand kilometres from the comet. 它将飞到离这颗慧星尾部大约一万公里的地方。

about 10 thousand kilometres from the comet 是tail的后置定语。

- (3) ... the material that flies off a comet as it moves toward the sun ... 当慧星飞向太阳时, 从慧星上坠落的物质。it 指慧星。

参 考 译 文

国际慧星探索器

美国的一架宇宙飞船将是飞越一颗慧星的第一个人造飞行器。这艘宇宙飞船即国际慧星探索器将在星期三飞近杰可比尼士勒慧星。世界上的科学家将能首次近距离地、详尽地研究这颗慧星。科学家之所以要研究慧星, 是因为它们可能是太阳系中最古老的星球。它们比行星和月亮还存在得久。科学家相信, 对慧星的研究将有助于我们更好地了解太阳系是如何形成的。

科学家认为, 在我们太阳系中大概有一千亿个慧星。通常, 他们像一个巨天的火球。然而, 中心可能主要是冰和尘埃, 通常直径不超过一公里宽, 尘埃和气体组成的慧尾可以跨过天空, 延伸数万里。

国际慧星探索器发射于1978年，用以检测从太阳流向地球的气流粒子。三年前科学家点燃了宇宙飞船的小火箭，便使飞船离地球轨道进入与杰可比尼士勒慧星相遇的航向。然而，由于宇宙飞船缺乏足够的燃料来维持这样长的航程，所以，科学家首先使它进入月球的轨道。月球对飞船的吸引像一个巨大弹弓的作用，改变了宇宙飞船的航向，使它进入一个新的遥远的宇宙轨道。星期三宇宙飞船将飞离地球一千七百万公里远，并将飞到离这颗慧星尾部大约一万公里的地方。

宇宙飞船不能拍摄这一慧星的照片是因为它没有携带照像机。但是，宇宙飞船上的仪器可以详细地研究慧星尾部的粒子、气体和电磁力。当慧星飞向太阳时，科学家将接收到来自慧星坠落物的第一批直接数据。

美国科学家还说，他们将与研究另一颗更著名的哈雷慧星的专家们共享这些资料。哈雷慧星也正向我们太阳系区域回归。日本、苏联和欧洲航天总署的宇宙飞船明年三月将飞过哈雷慧星。

2. The Space Factory

A private American company has announced plans to build a small space factory. The first part of the factory would be carried into earth orbit on the American's space shuttle ⁽¹⁾ in 1989. The announcement was made by the American's Space Agency and officials of the private company—Space Industry Incorporated.

Scientists say a number of products can be made better in space than on earth. This is because of the weightlessness and almost complete lack of gravity in space. Weightlessness permits the mixture of some substances that can't be mixed on earth. Medicines and chemicals made in space can be purer than those made on earth. The proposed space factory would be designed to make such products. Computers would do most of the work, operating the machines ⁽²⁾. Humans would visit only two or three times a year, bringing supplies, making repairs and returning products to earth.

The head of the Space Industry Company, Mr. Mikes Bassie, said each part or module of the factory would be about ten and one half meters long and four and one half meters wide. Each would weigh 13, 500 kilograms. There will be seventy cubic meters of working space enough for two persons. Two large solar energy devices would provide electricity. The Space Agency said it has agreed to carry two of these modules into the space on the shuttle. The two will be linked together, floating in orbit more than four hundred kilometers above the earth.

Mr. Bassie said there some day would be as many as six factories linked together ⁽³⁾. The space shuttle itself would be linked temporarily to the factory. And experts say the factory might become part of a future American space station. The shuttle will carry workers, supplies and completed products between earth and space station. The astronauts who work in the factory will not live there. They will return

to the shuttle or the space station when their work period is over.

The Space Industry Company president, Mr. Bassie, is a retired space agency engineer. He helped develop the Mercury, Gemini and Appolo's spacecraft, which carried the America's first astronauts into space and to the moon. He also helped design the space shuttle.

New Words and Phrases

announce	[ə'nauns]	v.	宣布; 公布
permit	[pə'mit]	v.	允许; 准许
mixture	['mɪkstʃə]	n.	混合; 混合物
pure	[pjʊə]	a.	纯的; 纯净的
module	['mɒdju:l]	n.	组件; (宇宙飞船 上各个独立的) 舱; 分离舱
American's Space Agency			美国航天总署
space station			宇宙飞行站

Notes

- (1) space shuttle 宇宙飞船（这种飞船能在太空中往返穿梭飞行）。
- (2) Computers would do most of the work, operating the machines. operating the machines 是分词短语，作状语。
- (3) Mr. Bassie said there some day would be as many as six factories linked together. 本句中 some day 是作状语用的词组，there would be 是 there be 的时态变化，linked together 是过去分词短语，修饰主语 factories.

参 考 译 文

太 空 工 厂

一家美国私人公司宣布了修建一座小型太空工厂的计划。这个工厂的第一批组件将于1989年由美国的宇宙飞船送入地球轨道。这则消息是由美国航天总署和私人航天工业有限公司的官员们宣布的。

科学家说，许多产品在太空生产的质量比在地球上生产的更好。这是由于物体在太空的失重和几乎没有地心引力的原因。失重可以使在地球上不能混合的某些物质得以混合。在太空制造的药物和化学制品比地球上制造的更纯。装备设

计修建的太空工厂将会生产这些产品。计算机将承担大部分工作，操纵机器。人们一年只去看二、三次，送些补给品，做些修理工作，并把产品带回地球。

航天工业公司的负责人是麦克·巴西先生。他说，这个工厂的每个组件大约有10.5米长、4.5米宽、13,500公斤重。具有70立方米的工作间足可供两个人工作。两个大型的太阳能装置供应电能。航天总署说，他们已同意用飞船携带两个这样的组件进入太空。这两个组件将连结在一起，并在地球上空400公里以外的轨道上遨游。

巴西先生说，有一天将有六个之多的这类工厂连结在一起。飞船本身也可暂时与工厂连结。专家们说，这个工厂可能成为将来美国宇航站的一部分。飞船将在地球和宇航站之间往返穿梭，输送工作人员，运输补给品和成品。在这个工厂工作的宇航员并不住在那里。当他们工作一段时期以后，可以回到飞船或宇航站去。

宇宙工业公司总经理巴西先生是航天总署的退休工程师。他曾帮助研制过麦克尤里、杰米尼和阿波罗宇宙飞船。阿波罗宇宙飞船是运送美国第一批宇航员进入太空到月球去的宇宙飞船。现在他又帮助设计了这种能在太空往返的宇宙飞船。

3. Experiments on the Space Shuttle

High school and university students in the United States have designed two scientific experiments to be flown ⁽¹⁾ next year on the space shuttle. One experiment will test if chicken eggs can survive in a weightless environment. The second experiment will try to show how fast yeast can grow where there is no gravity. Scientists say information from these experiments will help them learn if it is possible to raise chickens and make bread in space. It will be necessary for astronauts on long space flights in the future to be able to grow their own food inside the spacecraft. The egg and yeast experiments are just two examples of students projects that are being flown on the space shuttle.

America's Space Agency has a special program for such experiments. It is called "The Get-away Special", or "GAS Program". The Space Agency hopes to increase our knowledge of space by giving young people a chance to do real space