*附件4：英文摘要要求（包括英文提要和英文长摘要）*

英文提要

 (英文提要的篇幅150~300词。研究性论文英文题要内容和中文摘要完全一致，综述性论文无特殊要求，简要概括全文内容即可，语法和拼写一定要准确无误。)

(研究性论文英文关键词，要与中文的关键词完全一致。)

例文：（研究性论文）

**Distribution Characteristics of *Pseudomonas* in Ningbo Coastal Sewage Outlets**

CHEN Li-Ping1, ZHANG Di-Jun1, HE Wei-Na1, ZHOU Jun1, ZHANG Chun-Dan1,

TONG Qian-Qian1, WANG Zhong-Hua1, LI Tai-Wu2, SU Xiu-Rong1

(1. *School of Marine Science*, *Ningbo University*, *Ningbo*,315211; 2. *Ningbo City College of Vocational Technology*, *Ningbo*, 315100)

**ABSTRACT**

Water samples were collected at twenty sites spread across ten Ningbo sewage outlets, two key sewage outlets and eight general sewage outlets. These samples were analyzed using high-throughput 454 pyrophosphate sequencing to determine the distribution of *Pseudomonas*. Samples were collected at each sewage outlet during March, May, August, and October of 2011. The results showed *Pseudomonas* to be present in sewage off the coast of Ningbo. *Pseudomonas veronii* and *Pseudomonas fragi* were the most common, accounting for 56.72% and 13.904%, respectively, of all detectable *Pseudomonas*. The numbers of *Pseudomonas* showed seasonal differences, with more in March and May than in August or October. This is related to seasonal changes in temperature. The numbers of *Pseudomonas* are also associated with the main pollutant of sewage outlet, higher levels of ammonia nitrogen content with the higher levels of the *Pseudomonas*.

**Key words** *Pseudomonas*; High-throughput 454 pyrophosphate sequencing; sewage outlet; cluster analysis

例文：（综述性论文）

**Microbiological Studies on Subseafloor Deep Biosphers**

**in Deep Sea Extreme Environments**

DANG Hong-yue, Li Tie-gang, Zeng Zhi-gang, QIN Yun-shan

(Institute of oceanology, Chinese Academy of Sciences, Qingdao, 266071

**ABSTRACT**

Because of extreme environmental conditions, deep sea subsurface sediments were traditionally regarded as a huge ‘desert’ unable to support any kind of life-form. However, 30 years’ investigation by the successive DSDP and ODP deep drilling projects indicated that microbes are extensively distributed in the deeply buried sediments and some shallow oceanic crusts in the world oceans. The subseafloor deep biosphere has huge microbial biomass and great biological and molecular diversity, and carries out a series of complicated and diverse physio-ecological functions. Study of the deep subseafloor biosphere microorganisms became the foci of studies on life’s origin and evolution, earth system evolutionand transformation, global climate change, biotechnological development and exploitation of marine life and subseafloor natural energy resources. This review discusses the significances of the subseafloor deep biosphere microbial study and summarizes the progresses newly made in this field, in order to promote the initiation and development of related researches in our country for the active engagement in global marine resource exploitation and in international cooperation in tackling profound scientific issues in the new millennium.

**Key words** extreme environment; microbes; subseafloor; marine resource exploitation

英文长摘要

(长英文提要的篇幅500~2000词，可包含重要的图表，类似于展报形式，主要用于国际交流，格式与英文题要大约一致)