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科技英文写作

## 典型科技论文文摘分析

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科技论文文摘是一种专门的写作品体,自然采用的是文摘语言。在进行典型文摘分析之前十分有必要了解文摘的正式化结构和语言。

### 一、文摘的正式化结构和语言

一篇较为完整的水文摘通常包括三个主要部分即主题句、说明句和结束句。

1. 主题句。文摘的第一句话一般被称作主题句。通过回答“*What*”问题,主题句直入主题或问题并说明此文的主要目的。这类句式的主语通常是: *This paper*, *The example(s)*, *The method(s)*, *The approach(es)*, *The statistic(s)*, *The result(s)*, *The data*, *The find(s)*, *The experiment(s)*等。采用动词的主动式进行说明、介绍,从而使科技文章具有鲜明的动态感(*dynamical sense*)。

以下是主题句的常用句型:

- *The chief aim of the present work is to investigate the features of...*
- *Problem we have outlined deals largely with the study of...*
- *The emphasis of this study lies in...*
- *The primary object of this fundamental research is to reveal the cause of...*
- *The author attempted the set of experiments with a view to demonstrating certain phenomena...*

2. 说明句。紧跟着主题句后面的是两句或更多的说明句,具体说明主题,给出研究方法、实验、过程、计算、分析、结果等重要信息,可把它们看作文摘的主体。

以下是说明句的常用句型:

- *A number of experiments were performed to check...*
- *We have carried out several sets of exper-*

*iments to test the validity of...*

- *Included in the experiment were...*
- *The fundamental feature of this theory is as follows...*
- *The approach adopted extensively is called...*

3. 结束句。作为文摘的结尾部分,结束句通常分析结果,解释应用,指示研究的意义等。

以下是结束句的常用句型:

- *From our experiment, the author came to realize that...*
- *The data obtained appear to be very similar to those reported earlier by...*
- *All our preliminary results throw light on the nature of...*
- *In summing up it may be stated that...*
- *This fruitful work gives explanation of...*

### 二、典型文摘分析

为了便于分析,下面给出一篇有关论文文摘的中、英文对照。

#### BEPC 储存环同步光束流测量光学系统

本文概述了同步光束测量的特点,简单描述了 BEPC 现有的同步光束流测量系统。根据 BEPC 改造对同步光束测量提出的最新指标,提出了改造原有系统的新方案。对同步光引出镜进行了全新设计;采用高分辨率面阵 CCD 实现束团横截面尺寸测量、束团强度测量和束团位置检测;采用条纹相机实现束团纵向长度的测量;利用 Zemax 程序对新方案进行成像质量分析,束团纵向长度测量分辨率为 2 ps,横截面尺寸测量分辨率为 20  $\mu\text{m}$ 。

(原稿)

### Design of the synchrotron light measurement system for BEPC storage ring

The performances of the synchrotron light measurement system are generalized. The present measurement system for BEPC is described. A novel system is presented according to the latest request and discussed. The SR extraction mirror is designed. The profiler and intensity of beam are measured by CCD camera. The bunch length is measured by streak camera. The imaging quality of the new system is analyzed through Zemax program. The resolutions of beam-size and bunch length are 20  $\mu\text{m}$  and 2 ps.

#### 英文文摘分析

##### 1. 用词不当

performance 性能是概括性、笼统、抽象名词,无复数形式。应选用具体,可数名词“property”。

##### 2. 表达不准确

最新要求指的是最新技术指标,英文为:

latest specifications.

##### 3. 介词短语的位置不当,应放在句首或句尾:

According to the latest specifications a novel

system is presented and discussed.

4. 文摘中的所有句子都是被动语态,显得很单调,根据内容可交叉使用被动和主动语态句。

5. 句与句之间无过渡词,看不出他们之间的逻辑关系。

6. 简单句太多,内容不连贯,应当使用分词短语或分词独立结构等。

7. 凡属做过的工作要用过去时态表示,也可用现在完成时,要根据编辑要求而定。

8. 语言表达不太符合文摘文体的特点。

(修改稿)

This paper generalizes the properties of a synchrotron light measurement system and describes the present measurement system for BEPC. A novel system is presented according to the latest specifications. The SR extraction mirror was redesigned. The profiler and intensity of beam were measured by CCD camera, and the bunch length was measured by streak camera. The imaging quality of the new system is analyzed through Zemax program, the resolutions of beam size and of bunch length being 20  $\mu\text{m}$  and 2 ps, respectively.