



南京航空航天大学

材料科学与技术学院



英文论文写作的点滴体会

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2013.3.13



Professor Jie Tao's Research Group

MST



1. 论文各部分内容和时态

2. 论文写作常见错误

3. 论文修改时的思路





内容

Abstract

研究对象和内容，最大创新亮点，最主要手段，最主要结果

Introduction

背景，提出研究对象，待解决的问题，目的，**创新、不同、独特之处**

Experimental

材料，手段，**描述清晰**，详略得当

Results and Discussion **重点是讨论，推论合乎逻辑，避免证据不充分**

Conclusion

揭示重要结果和**内涵**，对结果的认识，不简单重复出现前文结论和句子





时态

Abstract

现在时，
过程和结果用过去时

Introduction

现在时，
研究综述用过去时或现在完成时

Experimental

实验过程描述用过去时

Results and Discussion

现在时，
实验描述用过去时

Conclusion

过去时





论文常见错误

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状语前置

口语化

✘ With the development of society and technology, more and more people cares about how to prepare graphene with high efficiency.

主谓一致

口语化

冠词、定冠词

○ The efficient preparation of graphene is widely concerned with the development of electro-chemical techniques.





存在问题

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- 主谓一致
- 用词口语化
- 头重脚轻
- 句式、用词单调
- 逻辑次序





主谓一致

1. 句子必须有谓语
2. 单复数主谓一致

主从句时态一致

如果变换时态，最好有表示时间状态的短语



Figure 1(a) and (b) shows that the current density increased when the treatment time changing from 1 to 2 min.



Figure 1(a) and (b) show that the current density increases when the treatment time changes from 1 to 2 mins.



Figure 1(a) and (b) show that the current density increases with the growth of the treatment time from 1 to 2 mins.

Up to now, TiO₂ photoelectrodes **are normally produced** by sol-gel technique involving TiO₂-based colloidal solutions





主谓一致

1. 句子必须有谓语
2. 单复数主谓一致

主从句时态一致

如果变换时态，最好有表示时间状态的短语



•Once *giving* an “order”, an electronic computer can gather a wide range of information from outer space.



•Once *it is given* an “order”, an electronic computer can gather a wide range of information from outer space.



•Once an “order” *is given*, an electronic computer can gather a wide range of information from outer space.





口语化

1. 用分词修饰代替从句
2. 避免口语化单词，避免过多的be动词
3. 多用简洁的专业词汇，动词名词化
4. 被动语态，尽量不用撇号



The device which is not developed enough costs too much. Anyway, a lot of scientists still find its good points.



The device not fully developed is expensive. However, its advantages are noticed by many scientists.



The superiority of the under-developed device are noticed by a large amount of scientists, even if it is expensive.





口语化

•科技英语除了大量使用各学科的专门术语外,还喜欢用一些日常语言中不怎么使用的书面词汇(有人称之为big words),以体现科技英语正式、庄重的语体特征。例如,科技英语多用**many**,少用a lot of 或lots of ;多用**obtain**,少用get ;多用**finally**,少用at last 或in the end ;多用正式动词(如perform ,invent 等),少用短语动词(如carry out ,make up 等)

•例

- (1) International papers should not use location dependant terms such as **'at home'**, **'abroad'**, **'here'**, **'our country'** because the reader most likely is not Chinese and not in China. Instead, write **'in China'**.
- (2) Avoid overusing the phrases **'that is to say'** and **'namely'**. Instead, try to convey your meaning in one sentence.
- (3) Do not use **'too'** at the end of a written sentence, especially in a technical paper.





口语化—学术化

- Send transmit/beam;
- use up consume
- Begin commence
- A lot of many/sufficient
- Before prior to
- Finish terminate/end
- give up abandon/waive
- Responsible liable
- as long as provided that
- Better superior
- Mainly principally





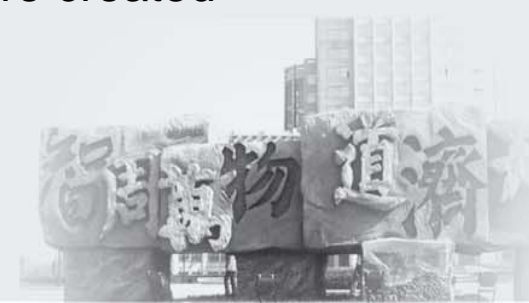
头重脚轻

1. It 引导形式主语
2. 把需要修饰的对象放在句子后面
3. 把最重要信息放到句子前面

The method which mixed part A and part B first and added part C before stirring at the room temperature is useful.

It is useful to add part C into the mixture of part A and part B before stirring at the room temperature.

Our fathers brought forth on this continent a new nation, conceived in Liberty, and dedicated to the proposition that all men are created equal.





目的，地点，原因，时间放在句首， 最重要的部分却在后面

- To ensure sheet metal quality as well as assembly quality, CMMs are widely used in automotive industry production.
- Based on the triangulation structure built from unorganized points or a CAD model, the extended STL format is described in this section.
- When U is taken as the control parameter, the BDs for $\Delta = 0.0, 0.001, 0.005$ are shown in Fig. 8.
- For the application in automobile interiors, this paper studies the nesting optimization problem in leather manufacturing.





句式、用词单调

1. 长短句结合
2. 减少同类型从句
3. 减少同一个句型、单词重复出现

✘ Das et al. [7] **synthesized** Al-MMCs reinforced with alumina sand particles by the processing of stir casting, improving the wear resistance properties of Al-4.5 wt% Cu alloy significantly. Li et al.[8] **fabricated** FeAl based composites reinforced with α -Al₂O₃ dispersions by hot-pressing sintering, obtaining higher fracture toughness and bending strength. T.G. Durai et al.[9] **prepared** the Al in situ Al₂O₃ composites by sintering at 950 °C, improving physical and mechanical properties of matrix. J. Pourhosseini¹ et al. [10] **synthesized** FeAl-Al₂O₃ composite via milling of Fe₂O₃ and Al powders mixture at nominal room temperature and annealing at 1000 °C for 6h, obtaining products with the mean grain size of 30 μ m at the end of milling and maximum microhardness of 11 GPa.





句式、用词单调

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3. 减少同一个句型、单词重复出现



Das *et al.* [7] synthesized Al-MMCs reinforced with alumina by the processing of stir casting, improving the wear resistance properties of Al-4.5 wt% Cu alloy significantly. **Moreover**, higher fracture toughness and bending strength of Al-MMCs could be obtained when FeAl-Fe₃Al-based composites reinforced with α -Al₂O₃ dispersions [8]. **However**, the Al₂O₃ particles are prone to cluster; and the properties of the substrate material are possibly influenced owing to the high temperature for preparation [9]. T.G. Durai *et al.* [9] reported that the sintering temperature of preparing the Al *in situ* Al₂O₃ composites was at 950 °C. **Besides sintering**, FeAl-Al₂O₃ composites were also prepared via milling of Fe₂O₃ and Al powders mixture at nominal room temperature and annealing at 1000 °C for 6h [10].





长句

例1. The actuator is very small and light. It can be used for incorporation in the space of the safety device.

改: The small size and light weight of the actuator makes it suitable for incorporation in the space available in the safety device.

例2. The two-electrode tube consists of tungsten filament and a plate. The tungsten filament gives off electrons when it is heated. The electrons migrate toward the plate when the field is in the right direction.

改: The two-electrode tube consists of tungsten filament, which gives off electrons when it is heated, and a plate toward which the electrons migrate when the field is in the right direction.





语言要体现逻辑

1. 全文逻辑，谋篇布局
2. 段落中保持逻辑，多用逻辑连词和副词
3. 保持主语的连贯，叙述思路不跳跃

Then anodization of sputtered Ti film was carried out in a bath **containing** 0.5 wt.% NH₄F and 3 vol.% H₂O in ethylene glycol (EG) solution, **under a constant voltage** of 60 V. **Afterwards**, samples with a typical three-layer construction (TiO₂- PNTAs/ Ti/ SS- substrate) were annealed at 450 °C for 3 hours **in** ambient air with a ramp up rate of 1 °C·min⁻¹ **followed by** furnace cooling. For assembling a DSSC, a TiO₂ PNTAs electrode was sensitized by being immersed into 0.5 mM dye solution of N719 (ASIPP) overnight. **Then** a sandwich-type DSSC was assembled and the dye-loaded TiO₂ PNTAs was served as a photoanode.





表示逻辑的连词和副词

- **因果：**

hence, therefore, consequencely, accordingly,
as a result, as a consequence, because, due to, owe to, considering

- **并列：**

moreover, furthermore, in addition, and, besides, except, while, meanwhile,
not only... but (also), then, additionally, respectively, both

- **最终：**

ultimately, eventually, finally





表示逻辑的连词和副词

- **转折：**

but, however, nevertheless, whereas, although, though

- **让步：**

even though, although, albeit,

- **条件：**

in case, if, on the condition of, unless, provided that, supposing that





表示逻辑的连词和副词

- 比较：

in contrast, similarly

- 相反：

instead, on the contrary,

- 总结：

in conclusion, in sum, overall, in general





关于修改论文

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- 时态
- 主谓一致
- 歧义句子
- 句式、用词单调
- 逻辑次序（思维跳跃）





- ✘ Preparation of pure Al coatings and subsequence plasma oxidation **by arc-added glow plasma depositing technique**
- Pure Al coatings prepared by arc-added glow plasma depositing technique and subsequence plasma oxidation
- ✘ Al coatings were prepared on 316L stainless steel substrate and plasma oxidized **by arc-added glow plasma depositing technique.**
- Al coatings were prepared on 316L stainless steel substrate by arc-added glow plasma depositing technique and then plasma oxidized.





常用词

- 描述, 证明, 说明 :

show, illustrate, depict, demonstrate, elucidate, indicate, prove, present, display

- 增加, 增强 :

Grow, raise, Increase, enhance, strengthen,

- 减少, 减弱 :

decrease, lessen, decline





常用词

- 提供，给定的：

Offered, given, presented, specified, designated, assigned

- 得到, 生成, 制备：

Obtain, gain, generate, produce, prepare, form

- 变：

change, alter, shift,

- 导致：

cause, result in, pose, lead to, bring, accounted for, render, contribute to, attributed to





常用词

- 为了：

In order to, be aimed at, be intended for

- 容易：

Be easy to, be susceptible to, be vulnerable to

the vulnerability of , the
susceptibility of,

- 用：

Use, utilize, apply, employ, by means of, through, via

- 重要：

Important, significant, indispensable, essential, crucial, critical





常用词

- 表征，测量，计算：

Characterize, measure, observe, assess, evaluate, calculate

- 合适，适当：

suitable, proper, appropriate, suited

- 大约：

About, around, approximate

