

<<Bilin gual Physics >>

图书基本信息

书名：<<Bilin gual Physics With Multimedia 大学物理引论>>

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## 前言

该课题组在开展此项教学研究工作中，精心制作了《大学物理多媒体光盘》（英文版）并多次修改完善，在多年的教学实践中收到了很好的教学效果。

同时，此套教学用光盘也得到了不少国内外知名物理学家的赞许。

最近，该课题组又正式推出了“双语物理导论”课程的依托教材——《Bilingual Physics with Multimedia》（《大学物理引论》（双语多媒体教材））。

该教材将动态的视频、音频的光盘，与静态的英文文字教材有机结合起来，是一项新颖而有益的尝试。

此外，该教材还辅以适度的参考译文及英语词汇，这些译文和词汇是编者们根据多年的教学实践而编纂的，相信会对我国的双语教学有所帮助和促进。

在此，我愿向广大的物理教师推荐此教材，并祝各位教师在采用此教材的双语物理教学中取得更多的业绩！

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### 内容概要

恽瑛教授领导的课题组在物理教学方面从事研究工作已有近20年的历史。数年前，他们在多年教学研究实践的基础上创设了“双语物理导论”这一多学科集成的课程，以使大学低年级学生尽早具备阅读英文教材、物理文献的能力，培养这些同学能够早日参加课题研究的能力。这是一项非常有意义的工作。

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## 章节摘录

插图：Holography is a technique for recording and reproducing an image of an object without the use of lenses. Unlike the two-dimensional images recorded by an ordinary photograph or a television system, a holographic image is truly three-dimensional. Such an image can be viewed from different directions to reveal different views, and from various distances to reveal changing perspective. The basic procedure for making a hologram is very simple in principle. A possible arrangement is shown in fig. 8-12a. We illuminate the object to be holographied with a monochromatic light, and we place a photographic film so that it is struck by scattered light from the object and also by direct light from the source. In practice, the source must be a laser, for reasons to be discussed later. Interference between the direct and scattered light leads to the formation and recording of a complex interference pattern on the film. To form the images, we simply project laser light through the developed film, as shown in fig. 8-12b. Two images are formed, a virtual image on the side of the film near the source, and a real image on the opposite side.

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