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STATUS AND PROSPECTS: TWO-DIMENSIONAL ATOMIC CRYSTAL MATERIALS

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Abstract Two-dimensional (2D) atomic crystal materials such as graphene possess a wealth of new physics, many fascinating physical and chemical properties and a wide range of potential applications, and have attracted increasing interest in various fields including materials science, condensed-matter physics and chemistry. This paper briefly introduced the synthesis, properties and possible applications of graphene as well as the recent progress of other 2D atomic crystal materials, and analyzed and discussed the future trends in 2D atomic crystal materials research and applications.

Key words graphene, two-dimensional atomic crystals, synthesis, properties, applications

· 资料 · 信息 ·

中国完成科学基金资助与管理绩效国际评估

在国家自然科学基金委员会成立 25 周年之际, 中国迄今为止规模最大的综合性科技绩效评估——科学基金资助与管理绩效国际评估顺利完成。

来自 6 个国家的 13 位资深科学家组成了此次国际评估的专家委员会。美国科学理事会原主席杰尔教授担任专家委员会主席, 全国人大常委会副委员长韩启德院士和德国科学基金会原主席温奈克教授担任副主席。

对中国自然科学基金实施的资助与管理绩效进行高质量、高效益、综合性、系统性评估, 在中国基金资助管理中尚属首次。

本次评估恪守独立性原则, 采取“国内准备、国际评估”的组织模式。国家科技评估中心作为独立评估机构负责整个评估活动的设计和开展, 在国家自然科

学基金委员会的配合下独立准备评估所需证据材料。

国际评估专家委员会以国内准备的证据材料为基础, 结合调研和国际比较, 独立得出评估结论。国家自然科学基金委员会作为被评估方, 按照评估要求提供真实充分的相关信息, 对评估过程和评估结论不加干预。

这次评估通过各种方式全方位收集证据材料。共发放调研问卷 7.8 万余份, 回收 2 万 multiple; 组织系列座谈会和面访 55 场, 座谈面访 294 人; 开展了大规模的文献计量分析。

评估由国家自然科学基金委员会和国家财政部联合委托进行, 2010 年初启动, 历时约 1 年半。

(新闻中心 供稿)