

DEVELOPMENT AND TEACHING APPLICATION OF SECONDARY SCHOOL CHEMISTRY TEACHING RESOURCES BASED ON NOBEL PRIZE CASES

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ABSTRACT

With the advent of the knowledge-based economy, the Nobel Prize has become the most influential award for scientific and technological achievements. Among them, the Nobel Prize in Chemistry is the highest honor in the field of chemistry. Many of its awarded achievements are cutting-edge inventions and discoveries in chemical science, which to a certain extent represent the development direction of the chemistry discipline. It has not only attracted extensive attention from scientists, but also from a large number of educators. Furthermore, with the deepening of the new curriculum reform, the requirements for teaching have become increasingly stringent. Therefore, teachers need to explore diverse teaching modes to effectively improve the efficiency of classroom teaching. To address the prevailing problems in secondary school chemistry teaching, including the shortage of cutting-edge situational materials, the disconnection between material application and teaching objectives, and the insufficient exploitation of the educational value of Nobel Prize teaching resources, this study systematically collects, classifies, and analyzes the teaching application of teaching materials related to the Nobel Prize in Chemistry, with the goal of implementing the cultivation of core competencies in the chemistry discipline. This research constructs a Nobel Prize teaching resource system adapted to secondary school chemistry teaching, and explores the application paths and implementation strategies of such resources in classroom teaching.

Keywords: Secondary School Chemistry Teaching, Nobel Prize, Situational Teaching.