

Chapter 1

Project Overview

1.1 Introduction

The Major Research Plan “Structural Design and Controllable Preparation of the Function-Directed Crystalline Materials” (hereinafter referred to as the Plan) was launched by the National Natural Science Foundation of China (NSFC) during the Eleventh Five-Year Plan period (2006–2010) after a thorough demonstration by scientists from various disciplines, including chemistry, physics, and materials science. The NSFC’s Department of Chemical Sciences, in collaboration with the Department of Engineering and Material Sciences, kicked off the Plan in 2009 after the initial conception and preparation. This Plan has published guidelines and accepted applications six times (2009–2012, 2014, and 2016) and received 658 applications since the first official publication of guidelines and acceptance of applications in January 2009. After the expert peer review and conference review, 158 projects were officially funded (including 124 fostering projects, 29 key projects, 3 integrated projects, and 2 strategic projects) with 188 million RMB in funding. The projects were related to 4 NSFC scientific departments, i.e., Chemical Sciences, Engineering and Material Sciences, Mathematical and Physical Sciences, and Information Sciences, and mainly belonged to the first two aforementioned departments.

1.1.1 Overall Arrangement

The Plan was implemented in two main phases. In the first phase, centering on the key