## KIKKAWA Takeo, Significance and Outlook of Complex Renaissance in Japan

The purpose of this paper is to make clear the significance and outlook of the so-called "Complex Renaissance" in Japan. Research Association of Refinery Integration for Group-Operation (RING), established in 2000, has promoted the first step program (RING I) in 2000-2002 and the second step (RING II) in 2003-2005, and started the third step (RING II). This paper analyzes the contents and problems of RING III developing in Kashima, Chiba, and Mizushima Complex.

In complex renaissance, not only integration of refinery and chemical equipments, but also refinery-refinery integration or chemical-chemical integration plays an important role. In addition, it is possible that equipments integration evolves into companies integration. Complex renaissance has a great significance making the international competitiveness of the Japanese petroleum and chemical industries stronger.