

Papers from the

Coated-Particle Fuel Symposium

Introduction

The Atomic Energy Commission and the Materials Science and Technology Division of the American Nuclear Society co-sponsored a symposium on 'Coated Particle Fuels' at the November 1963 ANS meeting in New York City, with the intent that the status of coated-particle fuel technology would be clearly and completely reviewed by those individuals intimately engaged in research and development and the industrial production of coated particles. Particular attention was directed toward research on the development of complex coated particles that show potential for use in a variety of reactor environments and in the performance of these coated particles under reactor operating conditions involving thermal cycling and the build-up of fission gases within the particle.

The co-operative spirit displayed by all of the American and foreign research organizations in sharing information on the development of coated particle fuel technology is a significant factor in the rapid pace of development. Successful development of coated-particle fuels is among the most important developments in the field of reactor materials in the past ten years.

PROPERTIES OF CERAMIC-COATED NUCLEAR-FUEL PARTICLES

IRRADIATION STUDIES OF CERAMIC-COATED NUCLEAR FUEL PARTICLES

DEVELOPMENT OF FUELED GRAPHITE CONTAINING PYROLYTIC-CARBON-COATED CARBIDE PARTICLES FOR NONPURGED, GAS-COOLED REACTOR SYSTEMS

DEVELOPMENT AND UTILIZATION OF PYROLYTIC-CARBON-COATED CARBIDE FUEL FOR THE HIGH-TEMPERATURE GAS-COOLED REACTOR

DUPLEX CARBON-COATED FUEL PARTICLES

THE DEVELOPMENT OF SPHERICAL PYROLYTIC-CARBON-COATED UC_2 AND $UThC_2$ FUEL PARTICLES