

AUSHANG

Alle auswärtigen Besucher des Kolloquiums werden gebeten, ihren gültigen Personalausweis oder Reisepass mitzubringen.

Institut für Kern- und Energietechnik

Leiter/in: Prof. Dr.-Ing. Thomas Schulenberg

Hermann-vom-Helmholtz Platz 1
76344 Eggenstein-Leopoldshafen

Telefon: 0721-608-23451

Fax: 0721-608-24837

E-Mail: heide.hofmann@kit.edu

Web: www.iket.kit.edu

Bearbeiter/in: Dr. A. Miassoedov/ho

Unser Zeichen: xxxx

Datum: 09. Mai 2018



Einladung zum IKET-Kolloquium

Zeit: Dienstag, 22. Mai 2018, 15.00 Uhr

Ort: Bibliothek des IKET, Campus Nord, Bau 420, Raum 204

Referent: Prof. Henryk Anglart, KTH, Nuclear Reactor Technology Department of Physics, School of Engineering Sciences, Stockholm, Sweden

Titel: CHF and heat transfer investigations in the high-pressure water test loop at KTH

Zusammenfassung:

High-pressure water test loop (HWAT) was constructed at KTH in early 1970-ties in Stockholm, Sweden, with the main goal to investigate the Critical Heat Flux (CHF) limit in Boiling Water Reactors (BWR). At that time Sweden decided to design own type of a BWR, called BWR-75, and more insight into the CHF phenomenon in that type of reactors was needed. Even though BWRs operate typically at about 70 bars pressure, it was decided to construct a loop for a much wider pressure range, up to 250 bars. It was also decided to employ 1 MW electrical DC power to get more accurate estimations of the critical power values during experiments.

In this seminar a short description of major experimental experiences and findings, that have been gained in the HWAT loop during the past four decades, will be given. In particular, early experiments performed by prof. Becker in 1970-ties and 1980-ties to develop first burnout correlations will be shortly summarized. A more detailed discussion will be devoted to most recent experimental investigations, where both dryout and post-dryout heat transfer were studied. Finally, a short outlook into the nearest future research plans and modernizations of the HWAT loop will be provided.

gez. T. Schulenberg