

IAPWS Certified Research Need  
ICRN #1

**Evaluation of Binary nucleation Models**

**ICRN Issue Date:** September 1993

**Closure Document**

In consideration that the sponsor is not longer active in IAPWS, and the subject is covered in an IAPWS book, the Working Group on Power Cycle Chemistry (item 7 from the Minutes 2005) recommended a closing statement.

**Background:**

This ICRN was first issued in 1993 by researchers from ENEL (Italy) in co-operation with the University of Genoa. Studies were continued under grants from the Czech republic and the Czech Academy of Sciences.

**Results Achieved:**

This subject has been covered in Chapter 7 of the IAPWS book on "Aqueous Systems at Elevated Temperatures and Pressures (2004). Key references are:

F.Sigon, P.Pinacci, M.Cociani, "Steam Nucleation Models for Impure Steam: Experimental Studies". 13th International Conference on the Properties of Water and Steam, Toronto/CDN, Sep 12-16, 1999, pg 692-702

F.Marsik, J.Hruby, P.Demo, Z.Kozisek, V.Petr, M.Kolovratnik, "Binary homogeneous nucleation in selected aqueous vapor mixtures". Chapter 7 of IAPWS book on Aqueous Systems at Elevated Temperatures and Pressures: Physical Chemistry in Water, Steam and Hydrothermal Solutions, edited by Donald A. Palmer, Roberto Fernández-Prini, and Allan H. Harvey, Elsevier, 2004 (ISBN: 0-12-544461-3), pp 205-242