

Programm NUKLEAR / Program Nuclear Safety

Adroguer, B.; Bertrand, F.; Chaterlard, P.; van Dorsselaere, J.P.; Cocuau, N.; Duriez, C.; Bellenfant, L.; Miassoedov, A.; Steinbrück, M.; Stuckert, J.; Schanz, G.; Krauss, W.; Hering, W.; Homann, C.; Bottomley, D.; Knoche, D.; Vrtilkova, V.; Belovsky, L.; Müller, K.; Hozer, Z.; Matus, L.; Nagy, I.; Gyenes, G.; Pinter, A.; Windberg, P.; Bandini, G.; Ederli, S.; Birchley, J.; Berlepsch, T.von; Kleinhietpass, I.; Buck, M.; Fernandez Benitez, J.A.; Martin-Fuertes, F.; Virtanen, E.; Marguet, S.; Azarian, G.; Caillaux, A.; Plank, H.; Veshchunov, M.; Berdyshev, A.; Boldyrev, A.; Kobzar, V.; Volchek, A.; Zvonarev, Y.; Goryachev, A.; Smirnov, V.

Core loss during a severe accident (COLOSS project).

COLOSS Final Synthesis Report, Contract FIKS-CT-1999-00002

SAM-COLOSS-P078 (June 2003)

Alsmeyer, H.; Eppinger, B.; Hofmann, P.; Kuczera, B.; Scholtyssek, W.; Schütz, W.; Sepold, L.; Steinbrück, M.

Großexperimente im Forschungszentrum Karlsruhe zur LWR Sicherheit.

ATW - Internationale Zeitschrift für Kernenergie, 49(2004) S.328-32

Ehrlich, K.; Konys, J.; Heikinheimo, L.; Leistikow, S.; Steiner, H.; Arnoux, P.; Schirra, M.

In-core and out-of-core materials selection for the HPLWR.

Wissenschaftliche Berichte, FZKA-6972 (Mai 2004)

Ehrlich, K.; Konys, J.; Heikinheimo, L.

Materials for high performance light water reactors.

Journal of Nuclear Materials, 327(2004) S.140-47

Furukawa, T.; Konys, J.; Müller, G.; Aoto, K.

Corrosion behavior of high chromium alloys in flowing LBE at 550° under active oxygen control.

INES-1 : 1st COE-Ines Internat.Symp., Tokyo, J, October 31- November 4, 2004

Ganesan, Va.; Ganesan, V.; Borgstedt, H.U.

Authors's reply to Generation of surface degraded layer on austenitic stainless steel piping exposed to flowing sodium in a loop: inter comparison of long term exposure data', by S. Rajendran Pillai.

Journal of Nuclear Materials, 334(2004) S.217-221

Hering, W.; Homann, C.; Steinbrück, M.; Meier, A.; Stegmaier, U.; Steinbock, L.; Heck, M.; Moch, J.; Schanz, G.; Sepold, L.; Steiner, H.; Stuckert, J.; Miassoedov, A.; Scholtyssek, W.

Overview of the QUENCH program at FZK.

Spring Meeting of the Cooperative Severe Accident Research Programme (CSARP), Arlington, Va., May 3-4, 2004

Hering, W.; Homann, C.; Meier, A.; Stegmaier, U.; Steinbock, L.; Steinbrück, M.; Heck, M.; Krauss, W.; Laier, J.; Moch, J.; Schanz, G.; Sepold, L.; Steiner, H.; Stuckert, J.; Vouriol, R.; Werner, I.; Miassoedov, A.; Scholtyssek, W.

Status of the QUENCH program.

9th Internat. QUENCH Workshop, Karlsruhe, October 13-15, 2003

Homann, Ch.; Hering, W.; Miassoedov, A.; Sepold, L.

Detailed investigation of thermal-hydraulic aspects during the reflood phase in QUENCH experiments.

Proc. of the 12th Internat. Conf. on Nuclear Engineering (ICONE-12), Arlington, Va., April 25-29, 2004

New York, N.Y. : ASME, 2004 CD-ROM ICONE12-49517

ISBN 0-7918-3734-3

Konys, J.; Muscher, H.; Voss, Z.; Wedemeyer, O.

Oxygen measurements in stagnant lead bismuth eutectic using electrochemical sensors.

Proc. of the 3rd Internat. Workshop on Materials for Hybrid Reactors and Related Technologies, Roma, I, October 10-13, 2003

Journal of Nuclear Materials, 335(2004) S.249-53

Krauss, W.; Schanz, G.; Steiner, H.

B₄C oxidation tests in TG-unit and approach to evaluation.

9th Internat.QUENCH-Workshop, Karlsruhe, October 13-15, 2003

Leistikow, S.; Konys, J.; Ehrlich, K.

Available metallurgical and process parameters/treatments for reduction of general corrosion/stress corrosion cracking for in- and ex-vessel application.

Wissenschaftliche Berichte, FZKA-6973 (Mai 2004)

Malkow, T.; Steiner, H.; Muscher, H.; Konys, J.

Mass transfer of iron impurities in LBE loops under non-isothermal flow conditions.

Proc. of the 3rd Internat. Workshop on Materials for Hybrid Reactors and Related Technologies, Roma, I, October 10-13, 2003

Journal of Nuclear Materials, 335(2004) S.199-203

Maschek, W.; Cheng, X.; Rineiski, A.; Stieglitz, R.; Konys, J.; Müller, G.; Broeders, C.; Schikorr, M.; Struwe, D.

Partitioning und Transmutation: Eine neue Perspektive bei der Behandlung nuklearer Abfälle?

Partitioning and transmutation: a new perspective for nuclear waste disposal?

Nachrichten - Forschungszentrum Karlsruhe, 36(2004) S.103-09

Special Edition in English, S.51-57

Meier, A.; Stegmaier, U.; Steinbock, L.; Steinbrück, M.; Heck, M.; Laier, J.; Moch, J.; Sepold, L.; Steiner, H.; Stuckert, J.; Hering, W.; Homann, C.; Miassoedov, A.; Scholtyssek, W.
Post-test examination of QUENCH-09 bundle degradation; comparison towards phenomena to be considered.

Phebus Fission Product Test 23. Bundle Interpretation Circle (BIC) Meeting, Aix-en-Provence, F, November 4, 2004

Meier, A.; Stegmaier, U.; Steinbock, L.; Steinbrück, M.; Heck, M.; Laier, J.; Moch, J.; Schanz, G.; Sepold, L.; Steiner, H.; Stuckert, J.; Hering, W.; Homann, C.; Miassoedov, A.; Scholtyssek, W.
Status of the QUENCH program at FZK.

10th Internat.QUENCH Workshop, Karlsruhe, October 26-28, 2004

Müller, G.; Heinzel, A.; Konys, J.; Schumacher, G.; Weisenburger, A.; Zimmermann, F.; Engelko, V.; Rusanov, A.; Markov, V.

Behavior of steels in flowing liquid PbBi eutectic alloy at 420-600 °C after 4000 - 7200 h.

3rd Internat. Workshop on Materials for Hybrid Reactors and Related Technologies, Roma, I, October 13-15, 2003

Journal of Nuclear Materials, 335(2004) S.163-68

Müller, K.; Goryachev, A.V.; Smirnov, V.P.; Svyatkin, A.M.; Stuckert, J.; Veshchunov, M.S.; Berdyshev, A.V.

Simultaneous dissolution of UO₂ and ZrO₂ by molten zircaloy. New experiments and modelling.

Wissenschaftliche Berichte, FZKA-6947 (Januar 2004)

Schanz, G.; Adroguer, B.; Volchek, A.

Advanced treatment of zircaloy cladding high-temperature oxidation in severe accident code calculations.

Part I. Experimental database and basic modelling

Nuclear Engineering and Design, 232(2004) S.75-84

Schanz, G.; Stegmaier, U.; Heck, M.

Comparative QUENCH-06 post-test evaluation. Safety limits for retained core geometry versus risk-determining degradation events.

9th Internat.QUENCH-Workshop, Karlsruhe, October 13-15, 2003

Schanz, G.; Stegmaier, U.; Heck, M.

Post-test examination and interpretation of the QUENCH-09 bundle state.

10th Internat.QUENCH-Workshop, Karlsruhe, October 26-28, 2004

Sepold, L.; Hering, W.; Homann, C.; Miassoedov, A.; Schanz, G.; Stegmaier, U.; Steinbrück, M.; Steiner, H.; Stuckert, J.

Experimental and computational results of the QUENCH-06 test (OECD ISP-45).

Wissenschaftliche Berichte, FZKA-6664 (Februar 2004)

Sepold, L.; Miassoedov, A.; Palagin, A.; Schanz, G.; Steinbrück, M.; Stuckert, J.; Veshchunov, M.
Results of the QUENCH-09 experiment compared to quench-07 (LWR-type test bundles with B₄C absorber).

Proc. of the 2004 Internat. Meeting on LWR Fuel Performance, Orlando, Fla., September 19-22, 2004

CD-ROM Paper 1022 S.480-89

La Grange Park, Ill. : ANS, 2004

Sepold, L.K.; Miassoedov, A.; Schanz, G.; Stegmaier, U.; Steinbrück, M.; Stuckert, J.; Homann, C.
Hydrogen generation in reflooding experiments with LWR-type rod bundles (QUENCH Program).

Nuclear Technology, 147(2004) S.202-15

Steinbrück, M.; Homann, C.; Miassoedov, A.; Schanz, G.; Sepold, L.; Stegmaier, U.; Steiner, H.; Stuckert, J.

Results of the B₄C control rod test QUENCH-07.

Wissenschaftliche Berichte, FZKA-6746 (Mai 2004)

Steinbrück, M.; Mioassoedov, A.; Schanz, G.; Sepold, L.; Stegmaier, U.; Steiner, H.; Stuckert, J.
Results of the QUENCH-09 experiment with a B₄C control rod.

Wissenschaftliche Berichte, FZKA-6829 (Dezember 2004)

Steinbrück, M.; Hering, W.; Homann, C.; Miassoedov, A.; Schanz, G.; Sepold, L.; Stuckert, J.
The QUENCH programme at Forschungszentrum Karlsruhe (FZK).

Internat. Conf. Nuclear Energy for New Europe 2004, Portoroz, SLO, September 6-9, 2004

Steinbrück, M.; Sepold, L.; Jacobs, H.; Miassoedov, A.; Hering, W.; Krieg, R.; Schütz, W.
Untersuchung der Phänomene schwerer Störfälle innerhalb des Druckbehälters.

Studies of severe in-vessel accident phenomena.

Nachrichten - Forschungszentrum Karlsruhe, 36(2004) S.67-72

Special Edition in English, S.13-18

Steiner, H.

Real case calculation for QUENCH-09 with the bundle code CALUMO.

9th Internat. QUENCH-Workshop, Karlsruhe, October 13-15, 2003

Stuckert, J.; Stegmaier, U.

Behaviour of oxide layer on zircaloy cladding tube under steam starvation conditions. Tests at temperatures between 1250°C and 1450°C.

10th Internat.QUENCH Workshop, Karlsruhe, October 26-28, 2004

Stuckert, J.; Stegmaier, U.

Behaviour of the cladding oxide layer under steam starvation conditions.

9th Internat.QUENCH Workshop, Karlsruhe, October 13-15, 2003

Stuckert, J.; Birchley, J.; Homann, C.; Horn, S.; Hozer, Z.; Miassoedov, A.; Moch, J.; Schanz, G.; Sepold, L.; Stegmaier, U.; Steinbock, L.; Steinbrück, M.

Main results of the bundle test QUENCH-10 on air ingress.

10th Internat.QUENCH Workshop, Karlsruhe, October 26-28, 2004

Stuckert, J.; Homann, C.; Miassoedov, A.; Moch, J.; Steinbrück, M.; Sepold, L.; Stegmaier, U.

Main results of the bundle test QUENCH-08 (in comparison with QUENCH-07).

9th Internat.QUENCH Workshop, Karlsruhe, October 13-15, 2003

Stuckert, J.; Homann, C.; Miassoedov, A.; Sepold, L.; Steinbrück, M.

Results of the QUENCH-08 experiment as a reference to QUENCH-07 (with B₄C absorber).

Jahrestagung Kerntechnik 2004, Düsseldorf, 25.-27.Mai 2004

Berlin : INFORUM GmbH, 2004 S.131-34

Volchek, A.; Zvonarev, Yu.; Schanz, G.

Advanced treatment of zircaloy cladding high-temperature oxidation in severe accident code calculations.

Part II. Best-fitted parabolic correlations.

Nuclear Engineering and Design, 232(2004) S.85-96