

**The list of external reports  
published by  
Energieonderzoek Centrum  
Nederland with subject and  
author index**

*Period: 1976-1989*

B. van der Schaaf

Petten, 15 August 2005


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55 page(s) MMI/BvdS/MB

approved : B. van der Schaaf



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## 1 Introduction

The Energieonderzoek Centrum Nederland, ECN, published 225 external reports in the period from 1976 to 1989 covering energy in general. This series of 225, of which 3 reports cannot be retrieved, is only a fraction of the publications ECN generated. The annual reports over that period of 13 years include lists of many more publications in the open domain. In addition the organisation produced a wealth of reports for customers, partners, beneficiaries and internal use. The latter category of reports had a most restricted or confidential character and consequently has only been circulated internally.

The external ECN report series served several purposes. On many occasions the analyses and experimental methods needed more detailed descriptions than usually possible in papers, in journals and for symposia contributions. Software required more detailed description than space allowed in the open publication domain. Several databases generated with experimental (qualification of steel for fast reactor construction) and analytical efforts (determination of cross sections for design libraries) had to be opened for the public domain. Studies, such as the development of fusion power plant concepts are also part of the purpose. These reports provide the space to present the meaningful detail of such large-scale undertakings. Several theses prepared under ECN sponsorship have been published in the series as well.

The series served the purposes well. They were quoted frequently in restricted and in open literature as well to underpin the conclusions drawn in the limited paper space of the other media for the communication of science and technology developments.

The progress reporting of international projects such as the fast breeder and fusion technology development and fission and fusion fuel development projects used the vehicle of the external ECN reports to reach the partners in the co-operations.

At present there is an increasing interest in the research and development results produced in the 60ties and 70ties. The Generation-4, GEN-4 efforts to develop a new generation of nuclear reactors, needs a sound basis for the focussing and selections to be made. In the period of concern ECN was highly active in the research and development of high temperature reactors, HTR, and liquid metal fast breeder reactors, LMFBR. In the GEN-4 road map these reactor types are prominently present. ECN has produced analyses and experimental results in the range from basic materials properties to in-pile fuel pin behaviour under accident condition.

In the definition phase of the 7<sup>th</sup> framework program of the EU the ECN experience can become a most useful tool for creating attractive proposals for the development path of the new generation fission power reactors.

This list of external reports and the subject and author index have been produced to provide those active in the definition phase of the 7<sup>th</sup> framework program with a, biased, overview of the work completed in ECN. It is based on the documents presently stockpiled in Petten. The list of the external reports (249 in total) produced by RCN, also stockpiled in Petten, in the period 1960 to 1976, has appeared in parallel to this report (document number 68429). Together they will

complete an overview of a period of 30 years: the first generation of energy research and development personnel employed in the dunes. In the 50 year ECN jubilee this is a small salute to those who built the organisation practically from scratch to a nationally and internationally well-known organisation.

## **2 All ECN external report titles with authors and year of issue**

ECN-001

Petten September 1976

H.A. van der Sloot

Neutron activation analysis of trace elements in water samples after preconcentration on activated carbon

ECN-002

Petten September 1976

W.L. Zijp, H.J. Nolthenius

Comparison of integral cross section values of several cross section libraries in the SAND-II format

ECN-003

Petten October 1976

H.J.B. Lucas Luyckx, J.M. Jacobs, B. van der Schaaf

VASTAR a curve-fitting computer programme for creep strain-time data

ECN-004

Petten July 1976

B. van der Schaaf

Irradiation effects on the mechanical properties of 18Cr-11Ni stainless steel (DIN1.4948, Type AISI 304ss)

ECN-005

Petten September 1976

J.A.M.M. Kops

The aerodynamic diameter and specific surface area of branched chain-like aggregates

ECN-006

Petten November 1976

J.P.A. van den Bogaard, H.A. Bloemen, A.P.W.M. van der Putten

BOBL A subchannel code on bowing and blockages

ECN-007

Petten November 1976

E.K. Hoekstra

Fast reactor programme; combined second and third quarters 1976 progress report

ECN-008

Petten November 1976

A. van der Linde, H.J.B. Lucas Luyckx

Post-irradiation examination of the VIPAC fuel assemblies IFA-104 and IFA-203 irradiated in the Halden Boiling Water Reactor

ECN-009

Petten December 1976

H.A. Bloemen J.P.A. van den Bogaard J.A. Heil J. Hoornstra A.P.W.M. van der Putten

The BOBL code experimental verification of the hydraulic model including effects of pin bowing and grids

ECN-010

Petten October 1976

J.J. Veenema, A.J. Janssen

Small-sample reactivity worths of fission product isotopes and some other materials measured in STEK

ECN-011

Petten November 1977

R.J. Heijboer, A.J. Janssen

Pseudo fission-product cross sections for a fast breeder reactor

ECN-012

Petten November 1976

H. Gruppelaar, A.J. Janssen, J.W.M. Dekker

Intercomparison of recent evaluations for the capture cross sections of some fission-product nuclides

ECN-013

Petten January 1977

H. Gruppelaar

Tables of RCN-2 fission-product cross section evaluation Volume 1 (24 nuclides)

ECN-014

Petten February 1977

J.W.M. Dekker

Tables and figures of adjusted and unadjusted capture group cross sections based on the RCN-2 evaluation and integral measurements in STEK Volume 1



ECN-015

Petten March 1977

E.K. Hoekstra

Fast reactor programme; Fourth quarter 1976 progress report

ECN-016

Petten April 1977

M. Bustraan, C. Bobeldijk, G.C. Damstra, W.M.P. Franken, J.A. Hoekzema, H.J. Klein Nibbelink, H.T. Klippel, K. M. Muysken, W. Schuurman, K.A. Verschuur

Parameter study of a screw-pinch reactor with circular cross section

ECN-017

Petten February 1977

F.J. Luider

Pre-equilibrium theory and slaves of the master equation

ECN-018

Petten June 1977

W.M.P. Franken, H. Hoogland, P. Deijman

Heat transfer and friction on smooth and rough test rods

ECN-019

Petten March 1977

T.D. Oei, J.W.M. Dekker, W.H.J. Quaadvliet

Time-of-flight measurements in STEK

ECN-020

Petten September 1977

J.B. Luten

Neutron activation analysis of trace elements in rain water

ECN-021

Petten July 1977

H. Kwast

Transient tube burst tests on fast reactor fuel cladding

ECN-022

Petten July 1977

E.K. Hoekstra

Fast reactor programme; first quarter 1977 progress report

ECN-023

Petten January 1977

R. Arnoldus, C.H. van der Weijden, H.A. Das  
Sorption of cobalt and zinc from fresh water and seawater

ECN-024

Petten September 1977

H. Gruppelaar, J.W.M. Dekker

Impact of integral measurements on the capture cross section evaluations of individual fission product isotopes

ECN-025

Petten August 1977

W.L. Zijp, H.J. Nolthenius, N.J.C.M. van der Borg

Cross section library DOSCROS77 (in the SAND-II format)

ECN-026

Petten September 1977

J. Montizaan, H. Ames

Fast neutron spectrum measurements with a proton recoil spectrometer in the fast-thermal coupled critical facility STEK

ECN-027

Petten September 1977

M. Bustraan, J.W.M. Dekker, R.J. Heijboer, A.J. Janssen

Integral determination of fission product neutron capture cross sections for application in fast reactors

ECN-028

Petten August 1977

J.W.M. Dekker, H.C. Rieffe

Adjusted capture cross sections of fission product nuclides from STEK reactivity worths and CFRMF activation data

ECN-029

Petten November 1977

R. Harthoorn

Positron annihilation in non-dilute AgPd and CuPd alloys

ECN-030

Petten October 1977

J.W.M. Dekker

Tables and figures of adjusted and unadjusted capture group cross sections based on the RCN-2 evaluation and integral measurement in STEK, volume II

ECN-031

Petten November 1977

J. Vrijen

A diffuse neutron scattering study of clustering in copper-nickel alloys

ECN-032

Petten November 1977

M.I. de Vries, G.L. Tjoa, J.D. Elen

Radiation effects on low-cycle fatigue and tensile properties of AISI Type 304 stainless steel at 298 K

ECN-033

Petten December 1977

H. Gruppelaar

Tables of RCN-2 fission-product cross section evaluation volume 2 (13 nuclides)

ECN-034

Petten January 1978

E.K. Hoekstra

Fast reactor programme; Combined second and third quarters 1977 progress report

ECN-035

Petten February 1978

J.W.M. Dekker, J.B. Dragt, A.J. Janssen, R.J. Heijboer, H.T. Klippel

Adjusted neutron spectra of STEK cores for reactivity calculations

ECN-036

Petten February 1978

W.L. Zijp, K.H. Appelman, H.J. Nolthenius, H.C. Rieffe

Damage cross section library (DAMSIG77)

ECN-037

Petten February 1978

W.L. Zijp

Nuclear data guide for reactor neutron metrology

ECN-038

Petten March 1978

A. van der Linde, H.J. B. Lucas Luyckx

Performance of sphere-pac UO<sub>2</sub> fuel pins, irradiated in a loop

ECN-039

Petten March 1978

J.D. Elen, M.I. de Vries, B. van der Schaaf, H.U. Staal

Effect of neutron irradiation on creep, fatigue and tensile properties of stainless steel Type DIN 1.4948 (similar to AISI 304)

ECN-040

Petten May 1978

H. Gruppelaar

Evaluated neutron cross sections of natural molybdenum

ECN-041

Petten May 1978

E.K. Hoekstra

Fast reactor programme; Fourth quarter 1977 progress report

ECN-042

Petten June 1978

J. Hamstra, J.W.A.M. Kevenaar

Temperature calculations on different configurations for disposal of high-level reprocessing waste in a salt dome model

ECN-043

Petten August 1978

H.U. Staal, M.I. de Vries, B. van der Schaaf, J.D. Elen

Effects of neutron irradiation on the tensile properties of the stainless steel DIN 1.4948 (similar to AISI 304)

ECN-44

Petten August 1978

M.I. de Vries, W.J. Geers

Diametral low-cycle fatigue testing a comparison of first experimental results from diametral low-cycle fatigue tests with results from axial tests

ECN-045

Petten Oktober 1978

L. Bevaart

Some neutron scattering studies on magnetic and molecular phase transitions

ECN-046

Petten September 1978

H-P. Knapp, J. Prij

Inelastic finite element analysis of a pipe-elbow assembly

ECN-047

Petten September 1978

H.M. van Rij

Finite element solution technique for 2D-Poisson's equation with open boundaries

ECN-048

Petten September 1978

E.K. Hoekstra

Fast reactor programme; first quarter 1978 progress report

ECN-049

Petten Oktober 1978

R.A.M. Wolters

Synthesis, sintering properties and thermal conductivity of uranium carbonitrides

ECN-050

Petten Oktober 1978

M.I. de Vries, B. van der Schaaf, H.U. Staal, J.D. Elen

Effects of neutron irradiation and fatigue on ductility of stainless steel DIN 1.4948

ECN-051

Petten November 1978

A. van der Linde, A.C. Letsch, E.M. Hornsveld

Some observations on pitting corrosion in the Zircaloy cladding of fuel pins irradiated in a PWR loop

ECN-052

Petten November 1978

R.J. Heijboer

Pseudo fission-product cross sections for a 1300 MWe fast breeder reactor

ECN-053

Petten February

J.A.J. Basten

Multi-critical points in weakly anisotropic magnetic systems

ECN-054

Petten March 1979

J.W.M. Dekker

Tables and figures of adjusted and unadjusted capture group cross sections based on the RCN-2 evaluation and integral measurements in STEK

ECN-055

Petten March 1979

J.W.M. Dekker, H.C. Rieffe

Adjusted capture cross sections of fission-product nuclides from STEK reactivity worths and CFRMF activation data, Vol II

ECN-056

Petten March 1979

W.L. Zijp

On the consistency between integral and differential cross section data

ECN-057

Petten June 1979

T. van der Kaa

A steel irradiation capsule in the Petten high flux reactor

ECN-058

Petten April 1979

R. Vennink

Investigation of some nuclei in the fp shell-region

ECN-059

Petten April 1979

E.K. Hoekstra

Fast reactor programme; Combined second and third quarters 1978 progress report

ECN-060

Petten May 1979

J.M. Akkermans, H. Gruppelaar

Calculation of pre-equilibrium angular distributions with the exciton model code PREANG

ECN-061

Petten May 1979

B. van der Schaaf, M.I. de Vries, J.D. Elen

Effect of neutron irradiation on creep properties of  $^{18}\text{Cr}$ - $^{11}\text{Ni}$  (DIN 1.4948) stainless steel plate and welded joints at 823 K

ECN-062

Petten July 1979

P.P.J. Delheij

Radiative capture of polarized neutrons by aluminium and manganese nuclei

ECN-063

Petten May 1979

J.W.A.M. Kevenaar, P. Ploumen, L.G.J. Janssen, P. Winske

Comparison of temperature calculations for an arbitrary high-level waste disposal configuration in salt formations

ECN-064

Petten December 1979

K.A. Verschuur

Estimated target accuracies for neutronic responses in fusion reactors

ECN-065

Petten May 1979

H. Gruppelaar

Tables of RCN-2 fission product cross section evaluation

ECN-066

Petten June 1979

A. van der Linde, H.J.B. Lucas Luyckx, J.H.N. Verheugen

Post irradiation examinations of sphere-pac mixed oxide fuel pins irradiated in a PWR loop

ECN-067

Petten July 1979

M.I. de Vries, B. van der Schaaf, J.D. Elen

Results of 300 low cycle fatigue tests at 723K and 823 K on irradiated and unirradiated stainless steel DIN 1.4948 plate and welded joints

ECN-068

Petten July 1979

H.U. Staal, M.I. de Vries, J.D. Elen

The influence of neutron irradiation and fatigue on the low strain rate tensile properties of the stainless steel DIN X6 CrNi 1811 (similar to AISI Type 304)

ECN-069

Petten July 1979

H.A.J. van der Kamp

Measurements of spectrum indices and traverses of fission rates in the STEK cores

ECN-070

Petten August 1979

W.L. Zijp, J.H. Baard

Nuclear data guide for reactor neutron metrology Part I

ECN-071

Petten August 1979

W.L. Zijp, J.H. Baard

Nuclear data guide for reactor neutron metrology Part II

ECN-072

Petten October 1979

H.A. Das

Radiochemical analysis in the Netherlands a bibliography

ECN-073

Petten October 1979

M.I. de Vries, B. van der Schaaf, J.D. Elen

Tensile properties of irradiated and fatigue exposed stainless steel DIN X6 CrNi 1811 (similar to AISI Type 304) plate and welded joints

ECN-074

Petten October 1979

B. van der Schaaf, M.I. de Vries, J.D. Elen

Effect of neutron irradiation on sequential creep-fatigue interaction of 18Cr-11Ni (DIN 1.4948) stainless steel plate and welded joints at 823 K

ECN-075

Petten October 1979

J.C. Plakman

Fast reactor programme; fourth quarter 1978 progress report

ECN-076

Petten October 1979

J.C. Roemer

Brazing compilation of literature references from 1973-1978

ECN-077

Petten October 1979

M. Bustraan, B. Brandt, G.C. Damstra, W.M.P. Franken, J.A. Hoekzema, H.J. Klein Nibbelink, H.T. Klippel, W. Schuurman, H.J. Veringa, K.A. Verschuur



A reactor study on a belt-shaped screw-pinch reactor

ECN-078

Petten October 1979

H. Gruppelaar, B.P.J. van den Bos

The contribution of  $(n,p)$  and  $(n,\alpha)$  reactions to fission-product capture cross sections

ECN-079

Petten December 1979

J.B.M. de Haas

Radiative capture of polarized neutrons in  $^{51}\text{V}$  and  $^{141}\text{Pr}$  nuclei

ECN-080

Petten February 1980

H.A. van der Sloot, D. Hoede, J. Zonderhuis, C. Meijer

Preparation of very pure active carbon

ECN-081

Petten January 1982

J.R. Balder

Investigation of thermal neutron capture in  $^{23}\text{Na}$ ,  $^{138}\text{Ba}$ ,  $^{140}\text{Ce}$  and  $^{142}\text{Ce}$

ECN-082

Petten March 1980

G. Delfini, H. Gruppelaar

Maximum-likelihood analysis of resolved resonance parameters for 18 fission-product nuclides

ECN-083

Petten May 1980

J.C. Plakman

Fast reactor programme; first quarter 1979 progress report

ECN-084

Petten June 1980

H. Gruppelaar, J.M. Akkermans

Comparison of experimental and calculated neutron emission spectra and angular distributions

ECN-085

Petten July 1980

C.A. Weers

Multi trace element analysis of dry biological materials by neutron activation analysis including a chemical group separation

ECN-086

Petten July 1980

J.F. van de Vate

Investigations into the dynamics of aerosols in enclosures as used for air pollution studies

ECN-087

Petten September 1980

P.C.A. Ooms

Displacement and exchange reactions in radioanalysis

ECN-088

Petten October 1981

J.C. Plakman

Fast reactor programme; Combined second and third quarters 1979 progress report

ECN-089

Petten January 1981

J. Prij, J.H.J. Mengelers

On the derivation of a creep law from isothermal bore hole convergence

ECN-090

Petten April 1981

H.U. Staal

High cycle fatigue properties of irradiated and unirradiated stainless steel DIN 1.4948 plate at 823 K

ECN-091

Petten April 1981

A. van der Linde, J.H.N. Verheugen

Fabrication, irradiation and post-irradiation examinations of Mo<sub>2</sub> and UO<sub>2</sub> sphere-pac and UO<sub>2</sub> pellet fuel pins irradiated in a PWR loop

ECN-092

Petten April 1981

H.C. Rieffe

FITOCO, a program for the conversion of fine group flux density and cross section data to coarse group values

ECN-093

Petten April 1981

H.C. Rieffe, H.J. Nolthenius, W.L. Zijp

ENTOSAN a program for the calculation of fine group cross section values from ENDBF/B data

ECN-094

Petten April 1981

N.J.C.M. van den Borg, H.J. Nolthenius, W.L. Zijp

Flux density covariance matrix for unfolding of the HFR E-5 neutron spectrum

ECN-095

Petten June 1981

J.C. Plakman

Fast reactor programme; fourth quarter 1979 progress report

ECN-096

Petten October 1981

H.J. Veringa

Intrinsic stability of technical superconductors

ECN-097

Petten August 1981

W.L. Zijp, W.P. Voorbraak, H.C. Rieffe, H.J. Nolthenius

Comparison of two fine group cross section libraries resulting from the ENDF/B-V dosimetry file

ECN-098

Petten October 1981

J.A.G.M. van den Brand

Technetium (tin) ethane-1-hydroxy-1, 1-diphosphonate complexes preparation, composition and biodistribution

ECN-099

Petten September 1981

J. Kopecky

Quadrupole radiation strength in neutron capture

ECN-100

Petten October 1981

J.D. Elen

Fusion technology programme Semi-annual report January-June 1981

ECN-101

Petten October 1981

A.J. Janssen, T.D. Oei, J.B. Dragt

Statistical methods for the assessment of wind power integration into the electricity supply system

ECN-102

Petten October 1981

G. Wijbenga

Thermochemical investigations on intermetallic  $UMe_3$  compounds (Me= Ru, Rh, Pd)

ECN-103

Petten November 1981

H.J. Nolthenius, W.L. Zijp

Consistency between data from the ENDF/B-V dosimetry file and corresponding experimental data for some fast neutron reference spectra

ECN-104

Petten November 1981

W.L. Zijp, H.J. Nolthenius, H.C. Rieffe

Damage cross-section library DAMSIG81

ECN-105

Petten November 1981

W.L. Zijp, H.J. Nolthenius

Experience with neutron spectrum unfolding codes

ECN-106

Petten October 1981

W.L. Zijp, C. Ertek, E.M. Zsolnay, E.J. Szondi, H.J. Nolthenius, D.E. Cullen

First results of the REAL-80 exercise

ECN-107

Petten November 1981

H.A. Das, M. Dejkumhang, R.F.M. Herber, D. Hoede, H.A. van der Sloot

Instrumental neutron activation analysis of human hair and related radiotracer experiments on washing and leaching

ECN-108

Petten December 1981

H.A.J. van der Kamp, H. Gruppelaar

Evaluation of neutron cross sections for PD isotopes

ECN-109

Petten December 1981

W.M.P. Franken, C.J.G. Spoorenberg

The design of the SULTAN inner coil

ECN-110

Petten December 1981

M. Bustraan, B. Brandt, G.C. Damstra, J.A. Hoekzema, H.T. Klippel, K. Lievense, W. Schuurman, H.J. Veringa, K.A. Verschuur

The belt-shaped screw-pinch reactor

ECN-111

Petten December 1981

W.L. Zijp, H.J. Nolthenius, H.C. Rieffe

Cross-section library DOSCROS81

ECN-112

Petten March 1982

J.D. Elen

Fusion technology programme Semi-annual report July-December 1981

ECN-113

Petten July 1982

J.M. Kingma-Ter Haar

Effects of fission neutrons and X-rays on the epithelium of the mouse stomach

ECN-114

Petten March 1982

J. Prij

Investigation on crack growth parameters in the elastic plastic region

ECN-115

Petten March 1982

J.C. Plakman

Fast reactor programme; annual progress report 1980

ECN-116

Petten April 1982

A.S. Keverling Buisman

From body burden to effective dose equivalent

ECN-117

Petten May 1982

W.L. Zijp, J.K. Aaldijk

COMFIT a computer program for determining best fitting curves

ECN-118

Petten July 1982

T.J.A. Aalders

Short-range clustering and decomposition in copper-nickel and copper-nickel-iron alloys

ECN-119

Petten June 1982

V. Vonka, J. Hoornstra, P. Boersma

LDA measurements in a developing flow between parallel plates at  $Re = 5200$

ECN-120

Petten August 1982

H.A. van der Sloot, J. Wijkstra, A. van Dalen, H.A. Das, J. Slanina, J.J. Dekkers, G.D. Wals

Leaching of trace elements from coal solid waste

ECN-121

Petten September 1982

J.M. Akkermans

A random walk in the land of pre-compound decay

ECN-122

Petten October 1982

J.J.M. Steijger

Neutron scattering studies on phase transitions in  $(CD_3ND_3)_2CuCl_4$  and  $MnCl_2 \cdot 4H_2O$

ECN-123

Petten November 1982

C. de Graaf

List of research reports with report numbers from RCN-1 to RCN-249 published by RCN between 1960 and 1976

ECN-124

Petten November 1982

J.D. Elen

Fusion technology programme Semi-annual report January-June 1982

ECN-125

Petten November 1982

A.S. Keverling Buisman

From body burden to effective dose equivalent Part II

ECN-126

Petten November 1982

H. Kwast

Fast reactor type fuel pins tested under loss of flow conditions  
data compilation of R63 experiments L01-L19

ECN-127

Petten December 1982

A. van der Linde

Irradiation performance and post-irradiation examinations of the instrumented sphere-pac UO<sub>2</sub> assembly IFA-204, irradiated up to 1.7 % FIMA in the HBWR

ECN-128

Petten February 1983

W.L. Zijp, E.M. Zsolnay, H.J. Nolthenius, E.J. Szondi, G.T.C.H.M. Verhaag, D.E. Cullen, C. Ertek  
Final report on the REAL-80 exercise

ECN-129

Petten February 1983

L.P.L.M. Rabou

Electronic structure of C<sub>0.92</sub>Fe<sub>0.08</sub> a polarized positron annihilation and angle-resolved photoemission study

ECN-130

VOID

ECN-131

Petten April 1983

H.A. Das, D.J. Hoede, B.J.T. Nieuwendijk, H.A. van der Sloot, G.J.A. Teunissen, J.R.W. Woittiez  
Determination of arsenic, selenium and antimony by neutron activation analysis  
application to hair samples

ECN-132

Petten March 1983

J.D. Elen

Fusion technology program, Semi-annual report, July-December 1983

ECN-133

Petten May 1983

J.M. Vleeskens

Effect of coal properties on the fluidized bed combustion efficiency of single coals and blends

ECN-134

Petten May 1983

H. Kwast

Fast reactor type fuel pins tested under loss of flow conditions

Data compilation of R63 experiments L20-L24

ECN-135

Petten July 1983

G.L. Tjoa, F.P. van den Broek, J. van Hoepen

Fatigue testing of irradiated steels at high temperatures

ECN-136

Petten September 1983

T.A.A. Tielens

Nuclear spectroscopy of  $^{24}\text{Na}$  and  $^{46}\text{Sc}$  by thermal neutron capture

ECN-137

Petten September 1983

H.Th. Klippel

The thermal response of the first wall of a fusion reactor blanket to plasma disruptions

ECN-138

Petten September 1983

J.C. Plakman

Fast reactor programme, annual progress report 1981

ECN-139

Petten October 1983

E.M. Zsolnay, W.L. Zijp, H.J. Nolthenius

Effect of normalization of the neutron spectrum adjustment procedure

ECN-140

Petten December 1983

H.J. Flinsenberg

Fossil fuel fired closed cycle MHD power generating experiments

ECN-141

Petten November 1983

J.B. Dragt

On the systematic errors in the measurement of the aerodynamic performance of a WECS by the method of bins



ECN-142  
Petten March 1984  
M.G. Delfini  
Investigation of copper nuclei-neutron capture and microscopic calculation

ECN-143  
Petten November 1983  
J.D. Elen  
Fusion technology program, Semi-annual report, January-June 1983

ECN-144  
Petten November 1983  
J. Bergsma, R.J. Heijboer  
Radiation dose deposition and energy accumulation in a rock salt waste repository

ECN-145  
Petten December 1983  
J.F.A.G. Ruyl  
Study of excited states in  $^{48}\text{Ti}$ ,  $^{49}\text{Ti}$ , and  $^{50}\text{Ti}$  by means of radiative neutron capture

ECN-146  
Petten December 1983  
K.A. Verschuur  
FURNACE calculations for JET neutron diagnostics

ECN-147  
Petten January 1984  
J.R.W. Woittiez  
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