Carsten Rode - DTU Orbit (16/01/2019)
Rode, Carsten
car@byg.dtu.dk
Department of Civil Engineering - Professor
Materials and Durability

Research outputs:

Characterization of sewage sludge ash and its effect on moisture physics of mortar
Research output: Research - peer-review › Journal article – Annual report year: 2019

Clustering-based analysis for residential district heating data
Research output: Research - peer-review › Journal article – Annual report year: 2018

Determination of hygrothermal properties of cementitious mortar: The effect of partial replacement of cement by incinerated sewage sludge ash
Research output: Research - peer-review › Journal article – Annual report year: 2018

Energy demand flexibility in buildings and district heating systems – a literature review
Research output: Research - peer-review › Journal article – Annual report year: 2018

Estimation of temperature setpoints and heat transfer coefficients among residential buildings in Denmark based on smart meter data
Research output: Research - peer-review › Journal article – Annual report year: 2018

Heating system energy flexibility of low-energy residential buildings
Research output: Research - peer-review › Journal article – Annual report year: 2018

Hygrothermal assessment of internally insulated solid masonry walls fitted with exterior hydrophobization and deliberate thermal bridge
Research output: Research - peer-review › Conference article – Annual report year: 2018

Implementation of Energy Strategies in Communities (Annex 63) Volume 3: Application of Strategic Measures
Research output: Research › Report – Annual report year: 1800

Implementation of integrated wireless sensors technology in renovation of social housing buildings. A Danish case study.
Research output: Research - peer-review › Paper – Annual report year: 2018

Influence of hydrophobation and deliberate thermal bridge on hygrothermal conditions of internally insulated historic solid masonry walls with built-in wood
Research output: Research - peer-review › Journal article – Annual report year: 2018

Interior insulation—Characterisation of the historic, solid masonry building segment and analysis of the heat saving potential by 1d, 2d, and 3d simulation
Research output: Research - peer-review › Journal article – Annual report year: 2018

Interior insulation – Experimental investigation of hygrothermal conditions and damage evaluation of solid masonry façades in a listed building
Research output: Research - peer-review › Journal article – Annual report year: 2018

International undersøgelse af krav og praksis for boligventilation
Research output: Communication › Journal article – Annual report year: 2018

Metal-organic framework MIL-100(Fe) as a novel moisture buffer material for energy-efficient indoor humidity control
Feng, X., Qin, M., Cui, S. & Rode, C. 2018 In : Building and Environment. 145, p. 234-242
Research output: Research - peer-review › Journal article – Annual report year: 2018

Profiling Occupant Behaviour in Danish Dwellings using Time Use Survey Data
Research output: Research - peer-review › Journal article – Annual report year: 2018

Profiling Occupant Behaviour in Danish Dwellings using Time Use Survey Data - Part I: Data Description and Activity Profiling
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

Profiling Occupant Behaviour in Danish Dwellings using Time Use Survey Data - Part II: Time-related Factors and Occupancy
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

Prosumer Cluster of Single-Family Houses under the Danish Net Metering Policy
Larma, M., Li, R. & Rode, C. 2018 p. 449-454
Research output: Research - peer-review › Paper – Annual report year: 2018

Utilizing thermal building mass for storage in district heating systems: Combined building level simulations and system level optimization
Research output: Research - peer-review › Journal article – Annual report year: 2018

Conditions for mould growth on typical interior surfaces
Research output: Research - peer-review › Conference article – Annual report year: 2017

Enhancing demand side flexibility in Nordhavn buildings for integrated multi-energy systems
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017
Flexibility of Large-Scale Solar Heating Plant with Heat Pump and Thermal Energy Storage
Research output: Research › Article in proceedings – Annual report year: 2018

Impact of Building Design Parameters on Thermal Energy Flexibility in a Low-Energy Building
Research output: Research - peer-review › Paper – Annual report year: 2017

Impact of Weather and Occupancy on Energy Flexibility Potential of a Low-energy Building
Research output: Research - peer-review › Paper – Annual report year: 2017

Implementation of Energy Strategies in Communities (Annex 63) Volume 1: Inventory of measures
Research output: Research › Report – Annual report year: 2017

Implementation of Energy Strategies in Communities (Annex 63) Volume 2: Development of strategic measures
Research output: Research › Report – Annual report year: 2017

Intelligent Scheduling of a Grid-Connected Heat Pump in a Danish Detached House
Gianniou, P., Foteinaki, K., Heller, A. & Rode, C. 2017
Research output: Research - peer-review › Paper – Annual report year: 2017

Klimavenlig beton
Research output: Research › Report – Annual report year: 2017

Moisture buffering phenomenon and its impact on building energy consumption
Research output: Research - peer-review › Journal article – Annual report year: 2017

Moisture damage with magnesium oxide boards in Danish facade structures
Research output: Research - peer-review › Conference article – Annual report year: 2017

Strengthening requirement specification in sustainable procurement - an investigation of challenges
Research output: Research - peer-review › Journal article – Annual report year: 2017

Towards the definition of indicators for assessment of indoor air quality and energy performance in low-energy residential buildings
Research output: Research - peer-review › Journal article – Annual report year: 2017
An International Project on Indoor Air Quality Design and Control in Low Energy Residential Buildings
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Detection of fungal growth and its influence on gypsum wallboard – in the process of creating sustainable building materials
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Identification of parameters affecting the variability of energy use in residential buildings
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Identification of Parameters Affecting the Variability of Energy Use in Residential Buildings
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

IEA Project on Indoor Air Quality Design and Control in Low Energy Residential Buildings
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Magnesium-oxide boards cause moisture damage inside facades in new Danish buildings
Research output: Research - peer-review › Book – Annual report year: 2016

Modeling energy flexibility of low energy buildings utilizing thermal mass
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Research output: Research - peer-review › Book – Annual report year: 2016

Rapid detection and identification of Stachybotrys and Chaetomium species using tissue PCR analysis
Research output: Research - peer-review › Journal article – Annual report year: 2016

Sensory ratings of emissions from nontraditional building materials
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Visualization of the structural changes in plywood and gypsum board during the growth of Chaetomium globosum and Stachybotrys chartarum
Research output: Research - peer-review › Journal article – Annual report year: 2016

Aggregation of building energy demands for city-scale models
Indoor environment in bedrooms in 79 Greenlandic households
Research output: Research - peer-review › Journal article – Annual report year: 2014

Novel DNA barcodes for detection, identification and tracking of stachybotrys and chaetomium species
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Survey of Indoor Air Quality in the University of Alaska
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Waste-based materials; capability, application and impact on indoor environment – literature review
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

ZeroWaste BYG: Hygro-thermal conditions and pollutant emissions from ZeroWaste materials and their effects on humans
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

ZeroWaste BYG: Redesigning construction materials towards zero waste society
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

An arctic low-energy house as experimental setup for studies of heat dynamics of buildings
Andersen, P. H. D., Rode, C. & Madsen, H. 2013 In : Frontiers of Architectural Research. 2, 4, p. 488-499
Research output: Research - peer-review › Journal article – Annual report year: 2013

Bevar vores bygninger
Research output: Communication › Contribution to newspaper - Comment/debate – Annual report year: 2013

Evaluation of Sub-Zonal Airflow Models for the Prediction of Local Interior Boundary Conditions: Natural and Forced Convection Cases
Research output: Research - peer-review › Journal article – Annual report year: 2013

Global building physics
Rode, C. 2013 In : Journal of Building Physics. 36, 4, p. 337-352
Research output: Research - peer-review › Journal article – Annual report year: 2013

Holistic Energy Renovation of Pre- and Postwar Apartment Blocks in Denmark
Research output: Research › Paper – Annual report year: 2013

Low-energy house in Sisimiut - Data overview
Research output: Research › Report – Annual report year: 2013
Low-energy house in Sisimiut - Measurement equipment
Research output: Research › Report – Annual report year: 2013

Method for Developing and Assessing Holistic Energy Renovation of Multi-Storey Buildings
Research output: Research - peer-review › Paper – Annual report year: 2013

Non-isothermal Laboratory Measurements of Moisture Profiles in Calcium Silicate for Interior Insulation Applications
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Blower door tests of a group of identical flats in a new student accommodation in the Arctic
Research output: Research - peer-review › Paper – Annual report year: 2012

Center for Bygningssimulering: Idegrundlag for etablering af center
Research output: Research › Report – Annual report year: 2012

Characterization of fracture patterns and hygric properties for moisture flow modelling in cracked concrete
Research output: Research - peer-review › Journal article – Annual report year: 2012

Energy performance and Indoor Air Quality in Modern Buildings in Greenland: Case study Apisseq
Research output: Research › peer-review › Article in proceedings – Annual report year: 2012

Global Building Physics
Rode, C. 2012 8 p.
Research output: Education › Compendium/lecture notes – Annual report year: 2012

Lavenerghuset tæt på målet!
Research output: Research › Book chapter – Annual report year: 2012

Moisture conditions in buildings: how to avoid mould problems
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Non-destructive observation of damage in mortar and concrete during mechanical loading for the evaluation of moisture transfer profiles
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Studies of Heat Dynamics in an Arctic Low-energy House
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012
A design build activity for a "design build" course
Rode, C., Christensen, J. E. & Simonsen, C. 2011 Proceedings of the 7th International CDIO Conference.
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

A Low-energy Building under Arctic Conditions - Experiences After Five Years of Operation
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

An energy efficient building for the Arctic climate: Is a passive house sensible solution for Greenland?
Research output: Research › Ph.D. thesis – Annual report year: 2011

Buildings for smart cities
Research output: Research - peer-review › Book chapter – Annual report year: 2011

Hysteresis and Temperature Dependency of Moisture Sorption – New Measurements
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Improved experimental setup for observation of non-linear heat dynamics
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Low-energy house in Arctic climate - 5 years of experience
Research output: Research - peer-review › Journal article – Annual report year: 2011

The potential for energy efficient building design - differences between Europe and the Arctic
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Air Tightness and Energy Performance of an Arctic Low-Energy House
Research output: Research › Article in proceedings – Annual report year: 2010

Annual Report 2009
Research output: Research - peer-review › Report – Annual report year: 2009

Lavenerghuset i Sisimiut 5 år
Rode, C. 2010 In : H V A C Magasinet. 7, p. 30-32
Research output: Research › Journal article – Annual report year: 2010

Low-energy house in Sisimiut: Annual report of Low-energy house performance July 2009 to June 2010
Research output: Research - peer-review › Report – Annual report year: 2010
Humidity in air during and after humidifying incidents in three different houses
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Implementation of Models for Building Envelope Air Flow Fields in a Whole Building Hygrothermal Simulation Tool
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Influence of the convective surface transfer coefficients on the Heat, Air, and Moisture (HAM) building performance
Stesken, P. W. M. H., Janssen, H. & Rode, C. 2009 Indoor and Built Environment. 18, 3, p. 245-256
Research output: Research - peer-review › Journal article – Annual report year: 2009

Low-energy house in Sisimiut: Annual report of Low-energy house performance July 2008 to June 2009
Research output: Research › Report – Annual report year: 2009

Passive Houses for Arctic.: Measures and Alternatives
Research output: Research › Article in proceedings – Annual report year: 2009

Performance of the Low-energy House in Sisimiut
Research output: Research › Article in proceedings – Annual report year: 2009

Renovation of standardized typical single family house to Passive House Standards by means of simulation
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Temperature distribution in Risø Flexhouse Room 3 with different heating control principles
Simone, A. & Rode, C. 2009 (BYG Sagsrapport; No. SRc 09-07).
Research output: Research › Report – Annual report year: 2009

Annual Report 2007
Research output: Communication › Report – Annual report year: 2008

BSim simulering af hygrotermiske forhold i 3 huse
Rode, C. 2008 DTU Byg, Danmarks Tekniske Universitet. (BYG Sagsrapport; No. SR 08-02).
Research output: Research › Report – Annual report year: 2008
Lavenergihus højt mod nord
Research output: Research › Journal article – Annual report year: 2007

Moisture Buffer Value of Building Materials
Research output: Research - peer-review › Conference article – Annual report year: 2007

The importance of moisture buffering for indoor climate and energy conditions of buildings
Research output: Research › Article in proceedings – Annual report year: 2007

The International Building Physics Toolbox in Simulink
Research output: Research - peer-review › Journal article – Annual report year: 2007

Whole-Building Hygrothermal Modeling in IEA Annex 41
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

A low-energy building under arctic conditions – a case study
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

A Model for Air Flow in Ventilated Cavities Implemented in a Tool for Whole-Building Hygrothermal Analysis
Grau, K. & Rode, C. 2006
Research output: Research › Report – Annual report year: 2006

BYG•DTU Annual Report 2005
Research output: Communication › Report – Annual report year: 2006

Danish and Brazilian Modeling of Whole-Building Hygrothermal Performance
Research output: Research › Article in proceedings – Annual report year: 2006

Drying of aerated cellular concrete
Janssen, H. & Rode, C. 2006 Technical University of Denmark (DTU). (SR; No. 06-07).
Research output: Research › Report – Annual report year: 2006

Effect of airflow velocity on moisture exchange at surfaces of building materials
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006
Research output: Research › Report – Annual report year: 2006

Lavenergihuset i Sisimiut.: Notat om aktiviteter udført som led i KVUG-projekt: Indlejring af erfaringer fra lavenergihus i Sisimiut.
Research output: Research › Report – Annual report year: 2006

Modelling the Hygrothermal Interaction Between Materials and the Indoor Climate
Research output: Research › Article in proceedings – Annual report year: 2006

Moisture buffer value: A comprehensive analysis of essential parameters
Research output: Research › peer-review › Article in proceedings – Annual report year: 2006

Moisture Buffer Value of Building Materials
Research output: Research › Report – Annual report year: 2006

Simulation Tests in Whole Building Heat and Moisture Transfer
Research output: Research › peer-review › Article in proceedings – Annual report year: 2006

The Concept of Moisture Buffer Value of Building Materials and its Application in Building Design
Research output: Research › peer-review › Article in proceedings – Annual report year: 2006

The Wick-Concept for Thermal Insulation of Cold Piping
Koverdynsky, V., Korsgaard, V. & Rode, C. 2006 In : Journal of Building Physics. 29, 4, p. 313-327
Research output: Research › peer-review › Journal article – Annual report year: 2006

Danish Mould Research Programme
Rode, C. 2005
Research output: Research › Report – Annual report year: 2005

Effect of airflow velocity on moisture exchange at surfaces
Mortensen, L. H., Rode, C. & Peuhkuri, R. H. 2005
Research output: Research › Report – Annual report year: 2005

Effect of method, step size and drying temperature on sorption isotherms
Research output: Research › peer-review › Article in proceedings – Annual report year: 2005

Energy efficient building
Research output: Research › peer-review › Report – Annual report year: 2005
Full scale tests of moisture buffer capacity of wall materials
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Investigation of airflow patterns in microclimates with Particle Image Velocimetry (PIV)
Mortensen, L. H., Mertens, J., Rode, C. & Peuhkuri, R. H. 2005
Research output: Research › Report – Annual report year: 2005

Investigation of microclimate between wall and furniture with CFD
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Moisture and Indoor Climate in Buildings
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Moisture Buffering of Building Materials
Research output: Research - peer-review › Report – Annual report year: 2005

Moisture Buffer Value of Materials in Buildings
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

NORDTEST Project on Moisture Buffer Value of Materials
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Requirements of inverted roofs with a drainage layer.
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Response of insulation materials on non-isothermal moisture transport: Final results
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Subtask 1- Modelling principles and common exercises
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005
Summary Report for Common Exercise 1
Rode, C. & Peuhkuri, R. H. 2005
Research output: Research › Report – Annual report year: 2005

Using dynamic moisture loading tests for determination of Moisture Buffer value: Working paper IEA Annex 41 Meeting, Montreal
Peuhkuri, R. H. & Rode, C. 2005
Research output: Research › Report – Annual report year: 2005

Whole Building Ham Simulation With A Multizone Air Flow Model
Grau, K. & Rode, C. 2005
Research output: Research › Report – Annual report year: 2005

Hygrothermal Performance and Solling of Exterior Building Surfaces
Research output: Research › Ph.D. thesis – Annual report year: 2004

Anforderungen an Umkehrdächer mit Trennlage: Erläuterungen zur Anwendung von EN ISO 6946
Research output: Research › peer-review › Journal article – Annual report year: 2004

A Review of Humidity Buffering in the Interior Spaces
Rode, C., Holm, A. & Padfield, T. 2004 In : Journal of Thermal Envelope and Building Science. 27, 3, p. 221-226
Research output: Research › peer-review › Journal article – Annual report year: 2004

Evaluation of Moisture Buffer Effects by Performing Whole-Building Simulations
Rode, C., Mendes, N. & K., G. 2004 In : A S H R A E Transactions. 110, 2, p. 783-794
Research output: Research › peer-review › Journal article – Annual report year: 2004

Modeling of Moisture Transport in Wood with Hysterisis and Temperature Dependent Sorption Characteristics
Research output: Research › peer-review › Article in proceedings – Annual report year: 2004

Moisture buffer capacity of different insulation materials
Research output: Research › peer-review › Article in proceedings – Annual report year: 2004

Moisture Buffer Performance of a Fully Furnished Room
Svennberg, K., Hedegaard, L. G. & Rode, C. 2004 Performance of the Exterior Envelopes of Whole Buildings IX.
Research output: Research › peer-review › Article in proceedings – Annual report year: 2004
Fugtfordeling i absorberende isoleringsmaterialer: Moisture distribution in absorbent insulation
Research output: Research - peer-review › Report – Annual report year: 2003

Hele Bygninger
Rode, C. 2003 In : DANVAK Magasinet. 5, p. 61
Research output: Communication › Journal article – Annual report year: 2003

Integrated Hygrothermal Analysis of Ecological Buildings
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Komplet beregning af bygningers varme- og fugttekniske forhold
Rode, C. & Grau, K. 2003 In : VVS. 3, p. 30-33
Research output: Communication › Journal article – Annual report year: 2003

Methods to design and predict moisture levels in buildings
Rode, C. 2003
Research output: Communication › Paper – Annual report year: 2003

Modelling af fugtforsvar i "hele" bygninger
Rode, C. 2003
Research output: Communication › Paper – Annual report year: 2003

The Use of Spreadsheets to Calculate Water Vapour Diffusion According to the Glaser Method
Research output: Communication › Report – Annual report year: 2003

Whole-building Hygrothermal Simulation Model
Rode, C. & Grau, K. 2003 In : A S H R A E Transactions. 109, 1, p. 572-582
Research output: Research - peer-review › Conference article – Annual report year: 2003

Workshop on moisture buffer capacity
Research output: Research - peer-review › Report – Annual report year: 2003

Workshop on Moisture Buffer Capacity - Summary Report
Research output: Research - peer-review › Report – Annual report year: 2003

Application of a Computer Model for Integrated Hygrothermal Building Analysis
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Integrated Calculation of Hygrothermal Conditions of Buildings
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

International Building Physics Toolbox: General report
Non-isothermal water vapour transmission through porous insulation. Part 1
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Non-isothermal water vapour transmission through porous insulation. Part 2
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Ny metode til modellering af fugt i bygninger
Rode, C. 2002
Research output: Communication › Paper – Annual report year: 2002

Simulation of Whole-Building Hygrothermal Conditions
Research output: Research › Article in proceedings – Annual report year: 2002

Test Cell Measurements of Moisture Buffer Effects
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

User's guide to the international building physics toolbox: A (very) brief manual
Research output: Research › Report – Annual report year: 2002

Fuldskalet måling af fugtbuffervirkning af materialer
Rode, C. 2001
Research output: Research › Paper – Annual report year: 2001

Indeklima og byggematerialers hygroskopiske egenskaber - Forskning på DTU
Rode, C. 2001
Research output: Communication › Paper – Annual report year: 2001

Modelling and Experimental Investigation of indoor humidity levels
Rode, C. 2001
Research output: Research › Paper – Annual report year: 2001

Omfang af og risici for fugt og skimmel i konstruktioner og materialer - beregningsmetoder
Rode, C. 2001
Research output: Communication › Paper – Annual report year: 2001

Omfang af og risiko for fugt og skimmel i konstruktioner og materialer: beregningsmetoder
Rode, C. 2001
Research output: Research › 2D/3D (physical products) – Annual report year: 2001

Procedure for Determining the Design Value of the Thermal Conductivity of Thermal Insulation Materials
Rudbeck, C. C. & Rode, C. 2001 Technical University of Denmark, Department of Civil Engineering. (BYG Sagsrapport; No. SR 01-02).
Research output: Research - peer-review › Report – Annual report year: 2001
Udstyr til undersøgelse af fugtfordeling i absorberende isoleringsmaterialer
Research output: Research - peer-review › Report – Annual report year: 2001

Whole Building Hygrothermal Modelling
Rode, C. 2001
Research output: Research › Paper – Annual report year: 2001

Egenkonvektion i fåreuld og papirisolering
Kristiansen, F. H. & Rode, C. 2000 DTU Byg, Danmarks Tekniske Universitet. (BYG Sagsrapport; No. SR 00-05).
Research output: Research › Report – Annual report year: 2000

Termisk bygningssimulering
Research output: Research - peer-review › Book – Annual report year: 2000

Transient Heat Conduction
Research output: Research - peer-review › Book – Annual report year: 2000

Varmeledningsevne ved forskellige fugtforhold
Kristiansen, F. H. & Rode, C. 2000 DTU Byg, Danmarks Tekniske Universitet. (BYG Sagsrapport; No. SR 00-04).
Research output: Research › Report – Annual report year: 2000

Beregnete fugtforhold i konstruktioner: Del af "Varme- og fugttekniske undersøgelser af alternative isoleringsmaterialer"
Rode, C. & Rasmussen, N. T. Dec 1999 41 p. (BYG Sagsrapport; No. SR 00-06).
Research output: Research › Report – Annual report year: 2000

Dampness in Buildings and Health.: Interdisciplinary Research at the International Centre for Indoor Environment and Energy
Research output: Research › Article in proceedings – Annual report year: 1999

Hovedrapport. Varme- og fugttekniske undersøgelser af alternative isoleringsmaterialer
Hansen, K. K., Hansen, E. J. D. P., Padfield, T., Rode, C. & Kristiansen, F. H. 1999
Research output: Research › Report – Annual report year: 1999

Investigation of the Hygrothermal Performance of Alternative Insulation Materials
Research output: Research › Article in proceedings – Annual report year: 1999

Kommentarer og supplement til DS 418
Research output: Research › Book – Annual report year: 1999

Natural convection in sheep's wool and paper insulation: Part of technical heat and moisture investigations of alternative insulation materials
Research output: Research › Report – Annual report year: 1999
Research output: Research - peer-review › Report – Annual report year: 1999

Stråling
Research output: Research - peer-review › Book – Annual report year: 1999

Thermal conductivity at different humidity conditions: Part of technical heat and moisture investigation of alternative insulation materials
Research output: Research - peer-review › Report – Annual report year: 1999

Transient Heat Conduction
Research output: Research - peer-review › Book – Annual report year: 1999

Varmetransmission ved lødning
Research output: Research - peer-review › Book – Annual report year: 1999

Energiforbrug i den eksisterende bygningsmasse
Rode, C. & Engelmark, J. 1998 In : VVS. 34, 10, p. 16-20
Research output: Research › Journal article – Annual report year: 1998

Fugttransport
Research output: Research - peer-review › Book – Annual report year: 1998

Grundkursus i bygningsenergiteknik: Undervisningsnotat
Research output: Research - peer-review › Book – Annual report year: 1998

Kuldebroer
Research output: Research - peer-review › Book – Annual report year: 1998

Latent Heat Flow in Light Weight Roofs and its Influence on the Thermal Performance
Research output: Research - peer-review › Journal article – Annual report year: 1998

Multidimensional Heat Conduction: Undervisningsnotat
Research output: Research - peer-review › Book – Annual report year: 1998

Opfølgning af Energi 21 på området: Energibesparelser i den eksisterende bygningsmasse: Rammeprogram for forskning, udvikling, demonstration og information.
Rode, C. & Engelmark, J. 1998
Research output: Research - peer-review › Report – Annual report year: 1998

Organic Insulation Materials, the Effect on Indoor Humidity, and the Necessity of a Vapor Barrier
Termisk bygningssimulering
Research output: Research - peer-review › Book – Annual report year: 1998

Transient Heat Conduction: Undervisningsnotat
Research output: Research - peer-review › Book – Annual report year: 1998

Udeklima og vejrdatal
Research output: Research - peer-review › Book – Annual report year: 1998

Varmetransport ved konvektion
Research output: Research - peer-review › Book – Annual report year: 1998

Eine wasserdurchlässige Dampfbremse als Hygrodiode
Research output: Research - peer-review › Journal article – Annual report year: 1997

Elektriske apparater
Research output: Research - peer-review › Book – Annual report year: 1997

Finite Difference Approximations to Derivatives
Research output: Research - peer-review › Book – Annual report year: 1997

Grundkursus i Bygningsenergiteknik: Undervisningsnotat
Rode, C. (ed.) 1997
Research output: Research - peer-review › Book – Annual report year: 1997

Numerical Integration, Simpson's Formula
Research output: Research - peer-review › Book – Annual report year: 1997

The Explicit and Implicit Numerical Methods for Steady State and Transient, 2-D Heat Conduction
Research output: Research - peer-review › Book – Annual report year: 1997

The Explicit and Implicit Numerical Methods for Calculating Transient, 1-D Heat Conduction
Research output: Research - peer-review › Book – Annual report year: 1997

Varmetransmission
Research output: Research - peer-review › Book – Annual report year: 1997

Extra Heat Loss Through Light Weight Roofs Due to Latent Heat
Research output: Research - peer-review › Article in proceedings – Annual report year: 1996
Opstilling af regneark til beregning af fugtdiffusion efter Glasers metode
Research output: Research - peer-review › Book – Annual report year: 1996

Combined heat and moisture transfer in building constructions
Research output: Research › Ph.D. thesis – Annual report year: 1990

Projects:

Occupant-responsive integrated ventilation and heating solutions with excellent comfort for new and renovated dwellings
Sarran, L. J., Rode, C., Hviid, C. A. & Kolarik, J.
Industrial PhD
01/05/2018 → 30/04/2021
Project: PhD

Tools for Reliable Energy Performance Characterisation of Buildings
Rasmussen, C., Madsen, H. & Rode, C.
Samfinansieret - Andet
01/01/2017 → 31/12/2019
Project: PhD

RiBuild
01/01/2015 → 31/12/2019
Project: Research

Bæredygtighed ved renovering af eksisterende bygninger
Institut stipendie (DTU) Samf.
01/11/2010 → 04/07/2016
Project: PhD

Hygrotermisk mikroklima på indvendige overflader af klimaskærmen
Mortensen, L. H., Rode, C., Peuhkuri, R. H., Svendsen, S., Brohus, H. & Hagentoft, C. H.
Forskningsrådsfinansiering
01/05/2003 → 15/08/2007
Project: PhD

Metoder til optimaliserings analyse på bygningsenergiområdet
Pedersen, F. Ø., Svendsen, S., Bøhm, B., Nielsen, H. B., Rode, C., Christiansen, E. & Gustafsson, S.
DTU-lønnet stipendie
01/03/2002 → 09/03/2007
Project: PhD

Overfladens betydning for varme- og fugtforhold i bygningers klimaskærme og de drifts- og vedligeholdelsesmæssige konsekvenser heraf
Møller, E. B., Rode, C., Christoffersen, L. D., Hansen, K. K., Olsen, L. & Sedlbauer, K.
Samarbejdsaf talefinans
15/11/2000 → 26/03/2004
Træs mekanosorptive egenskaber
Jensen, S. K., Hoffmeyer, P., Damkilde, L., Rode, C., Kliger, R. & Olesen, P.
Ansat eksternt
01/04/1996 → 10/04/2003
Project: PhD

Energirenovering af Etagebyggerier med vidtgående Energibesparelser
Harrestrup, M., Svendsen, S., Rode, C., Björk, F. & Rudbeck, C. C.
Institut stipendie (DTU) Samf.
01/11/2011 → 19/03/2015
Project: PhD

IEA EBC Annex 63 - Implementation of Energy Strategies in Communities
Heller, A., Petersen, J. & Rode, C.
01/06/2013 → 01/06/2018
Project: Research

Models for flexible operation of buildings in district energy system Nordhavn
Foteinaki, K., Rode, C., Heller, A. & Li, R.
Samfinansieret - Andet
15/09/2015 → 14/02/2019
Project: PhD

Hygrothermal performance of internal insulation in historic buildings
Hansen, T. K., Bjørnøv, S. P., Peuhkuri, R. H., Rode, C., Blumberga, A. & Hansen, M. H.
Samfinansieret - Andet
01/06/2015 → 30/09/2018
Project: PhD

Assessment and Optimization Methods for Implementation of Energy Strategies in Communities
Samfinansieret - Andet
15/02/2015 → 06/09/2018
Project: PhD

Buildings for Smart Energy Cities
Samfinansieret - Andet
15/09/2014 → 07/05/2018
Project: PhD

Moisture Transport in Wood A Study of Physical-Mathematical Models and their Numerical Implementation
Krabbenhøft, K., Damkilde, L., Hoffmeyer, P., Rode, C., Petersson, H. & Ranta-Maunus, A.
Forskningsrådsfinansiering
01/08/2000 → 26/11/2004
Project: PhD

Model for Multidimensional Heat, Air and Moisture Conditions in Building Envelope Components
Forskningsrådsfinansiering
01/08/2006 → 06/01/2010
Project: PhD
Durability of buildings and energy renovation
Lauritzen, D., Svendsen, S., Rode, C., Björk, F. & Rudbeck, C. C.
Institut, samfinansiering
01/07/2010 → 26/08/2014
Project: PhD

Climate Change and its Impact on Lifetime and Maintenance of Buildings
1/3 FUU, 1/3 inst 1/3 Andet
15/08/2011 → 09/12/2015
Project: PhD

Fugttransport og konvektion i bygningskonstruktioner
Gudum, C., Rode, C., Hagentoft, C. H., Andersen, K. T. & Svendsen, S.
DTU-Su Stipendium, Eksperiment
01/08/1997 → 18/02/2003
Project: PhD

Investigation and Optimisation of Heat Storage Tanks for Low-Flow SDHW Systems
Knudsen, S., Furbo, S., Rode, C. & Vajen, K.
DTU-lønnnet stipendie
01/09/2000 → 26/09/2004
Project: PhD

Eksperimentel og analytisk fugtodynamik i sammensatte bygningskonstruktioner
Peuhkuri, R. H., Rode, C., Hansen, K. K., Hjorslev Hansen, M., Holm, A. & Time, B.
DTU-lønnnet stipendie
01/02/2000 → 17/10/2003
Project: PhD

Metode til optimering af bygninger med hensyn til energi og indeklima
Nielsen, T. R., Svendsen, S., Rode, C., Gustafsson, S. & Olsen, L.
DTU-lønnnet stipendie
01/02/1999 → 21/01/2003
Project: PhD

Passive Houses for Arctic Climates
DTU-lønnnet stipendie
01/08/2007 → 29/06/2011
Project: PhD

Interior insulation of buildings from 1850 to 1930 with massive external masonry walls and embedded wooden beam floor structure
Industrial PhD
15/12/2013 → 05/02/2018
Project: PhD

Resistance and susceptibility of the building envelope to fungal growth
Eksternt finansieret virksomhed
01/04/2013 → 15/02/2017
Project: PhD

Models for the energy performance of low-energy houses
Andersen, P. H. D., Madsen, H., Rode, C., Hattel, J. H., Heiselberg, P. & Roels, S.
Institut stipendie (DTU)
01/05/2010 → 24/01/2014
Project: PhD

Developing semi-empirical models for predicting climate inside electronic device enclosures
Staliulionis, Z., Hattel, J. H., Ambat, R., Jellesen, M. S., Mohanty, S., Rode, C., Park, S. & Tamulevicius, S.
Samfinansieret - Andet
15/10/2013 → 16/04/2018
Project: PhD

Performance Modeling for Product Development of Advanced Window Systems
Institut stipendie (DTU) Samf.
01/06/2009 → 28/09/2012
Project: PhD

Energirenovering af bygninger til lavenerginiveau
Institut stipendie (DTU) Samf.
01/12/2008 → 27/08/2013
Project: PhD

Energy use and indoor environment in new and exiting dwellings in arctic climates
Institut stipendie (DTU)
01/11/2010 → 24/04/2014
Project: PhD

ELN: EnergyLab Nordhavn - New Urban Energy Infrastructures
01/04/2015 → 31/03/2019
Project: Research

Models for flexible operation of buildings in district energy system Nordhavn
Foteinaki, K., Rode, C. & Heller, A.
15/09/2015 → …
Project: Research

Buildings for Smart Energy Cities
Gianniou, P., Rode, C., Nielsen, P. S. & Heller, A.
15/09/2014 → 15/09/2017
Project: Research

CITIES: Center for IT-Intelligent Energy Systems for Cities
Energy Programme
01/01/2014 → 31/12/2019
Project: Research

Skimmelsvampe i Grønland
Andersen, B. & Rode, C.
29/07/2012 → 04/08/2012
Project: Research
Betingelser for skimmelsvampevækst på byggematerialer
Andersen, B., Møller, E. B., Rode, C. & Peuhkuri, R. H.
04/04/2011 → 31/08/2013
Project: Research

Helhedsorienteret energirenovering
Bjarløv, S. P., Rode, C., Eriksen, M. S. H., Stang, B. F. D., Løgberg, E. & Simonsen, G.
01/01/2011 → 31/12/2013
Project: Research

The role of absorbent building materials in moderating changes of relative humidity
Nielsen, A., Hansen, K. K., Padfield, T. & Rode, C.
01/10/1996 → 19/11/1998
Project: Research

Heat and moisture characteristics of alternative thermal insulation materials.
Hansen, K. K., Hansen, E. J. D. P., Padfield, T., Rode, C. & Kristiansen, F. H.
Ukendt
15/04/1998 → 01/07/1999
Project: Research

Investigation of Heat and Moisture Performance of Alternative Insulation Materials
Rode, C. & Kristiansen, F. H.
Ukendt
15/04/1998 → 01/02/2000
Project: Research

Equipment to investigate moisture distribution in absorbing insulation materials
Rode, C., Padfield, T. & Nicolajsen, A.
Ukendt
01/04/1999 → 31/05/2000
Project: Research

Energy efficient, demand controlled ventilation for dwelling for the future
Rode, C. & Bergsøe, N. C.
Ukendt
01/03/1999 → 30/06/2000
Project: Research

Contribution to formulation of development programme for alternative thermal insulation material
Rode, C. & Nicolajsen, A.
Ukendt
01/01/1997 → 30/05/1997
Project: Research

Humidity in Buildings
Rode, C. & Fanger, P.
Ukendt
01/01/1998 → 31/12/2002
Project: Research

Moisture based determination of the design value of thermal conductivity based on the declared values for thermal insulation materials in typical building constructions
Rode, C., Rudbeck, C. C. & Dufour, J.
Ukendt
01/02/2000 → 31/05/2000
Project: Research
Secretarial assistance, Energy Research Programme 98
Rode, C.
Ukendt
10/10/1997 → 31/12/1997
Project: Research

Secretarial assistance, Energy Research Programme 1999
Rode, C.
Ukendt
01/01/1998 → 31/12/1998
Project: Research

Calculation of U-values for building components for VIF’s Table of U-values
Rode, C. & Rose, J.
Ukendt
01/01/1999 → 31/08/2000
Project: Research

Secretarial assistance, Energy Research Programme 2000
Rode, C.
Ukendt
01/01/1999 → 29/02/2000
Project: Research

Moisture problems in the floor of a congress centre
Rode, C.
Ukendt
01/01/1999 → 31/08/1999
Project: Research

Simulation of moisture conditions in sealed window units with acrylic glazing
Rode, C.
Ukendt
01/11/1997 → 31/12/1997
Project: Research

Framework programme on Energy Conservation in the Existing Building Stock
Rode, C. & Engelmark, J.
Ukendt
01/01/1998 → 31/08/1998
Project: Research

IEA, ECBCS, Annex 24, Heat, Air and Moisture Transfer in Insulated Envelope Parts, HAMTIE
Korsgaard, V. & Rode, C.
Ukendt
04/07/1991 → 21/01/1997
Project: Research

Beregning af U-værdier for bygningsdele til VIF's U-værdi tabel : U-værdi 2003
Rode, C., Rose, J., Weitzmann, P., Henriksen, T. & Petersen, M.
Indtægtsdækket virksomhed UK 90
01/12/2002 → 30/10/2003
Project: Research

Udarbejdelse af pjece: Indeklima og tegl
Rode, C. & Bøgh, S.
Cold Bridge Problem in Sandwich Panels, Clinic Buildings, Thule
Nielsen, H. J. & Rode, C.
Indtægtsdækket virksomhed UK 90
01/02/2003 → 31/03/2003
Project: Research

InnoBYG: Innovationsnetværket for energieffektivt og bæredygtigt byggeri
Rode, C., Bjarløv, S. P. & Eriksen, M. S. H.
Forskningsrådene - Andre
01/06/2010 → 31/05/2014
Project: Research

Dynamic effects in porous media flow in the built environment
Forskningsrådene - Andre
01/05/2008 → 30/04/2010
Project: Research

Indlejring af erfaringer fra lavenerghus Sisimiut
Rode, C., Fan, J., Borchersen, E., Kragh, J. & Furbo, S.
Program. Andre statslige danske - Andre prog. midler
01/03/2006 → 31/12/2006
Project: Research

Moisture Buffer Tests
Rode, C. & Bodner, H. R.
Indtægtsdækket virksomhed UK 90
21/02/2006 → 01/09/2006
Project: Research

Konference i Florida, USA : Støtte fra Otto Mønsteds Fond
Møller, J. S. & Rode, C.
Gaver, Private danske Fonde
01/11/2004 → 31/12/2004
Project: Research

IEA Annex 41 : Funding from Tagpapbranchens Oplysningsråd, TOR
Møller, J. S. & Rode, C.
Sam.arb.aftaler, Private danske - Andre virksomheder
Project: Research

Rode, C., Svendsen, S., Møller, E. B. & Hansen, M. H.
[Ordinær drift UK 10]
01/11/2005 → 30/06/2008
Project: Research

MD-HAM: Model for Multidimensional Heat, Air and Moisture Conditions in Building Envelope Components.
Møller, J. S., Rode, C., Stang, B. D. & Hansen, M. H.
Forskningsrådene - STVF
01/04/2006 → 31/03/2009
Project: Research
IEA Annex 41 : Funding from EFP 04, Danish Energy Agency
Møller, J. S., Rode, C., Grau, K. & Hansen, M. H.
Forskningsprojekter - Miljø- og Energiministeriet
Project: Research

Hygrothermal Performance of Whole Buildings
Rode, C., Peuhkuri, R. H. & Mortensen, L. H.
Forskningsrådene - STVF
01/05/2003 → 01/05/2006
Project: Research

Moisture Buffering of Building Materials
Rode, C., Time, B., Ojanen, T. & Arfvidsson, J.
Forsk. Andre offentlige og private - Nordiske
01/04/2004 → 30/06/2005
Project: Research

Reduktion af energiforbrug til udtørring af bygninger
Rode, C.
Program. Andre statslige danske - Miljø
01/07/2004 → 30/06/2006
Project: Research

Whole Building Heat, Air and Moisture Response : IEA ECBCS Annex 41, Subtask 1 leadership
Rode, C., Peuhkuri, R. H. & Mortensen, L. H.
Forsk. Private danske - Fonde
01/08/2004 → 31/12/2007
Project: Research

Reflekterende undertage
Rode, C. & Holck, O.
Indtægtsdækket virksomhed UK 90
31/01/2004 → 29/02/2004
Project: Research

Udvikling af elbesparende reguleringsstrategier og optimering af ventilationsanlæg og varmepumper i svømmehallers
Jensen, M. L. & Rode, C.
Forskningsprojekter - Miljø- og Energiministeriet
01/08/2003 → 31/12/2005
Project: Research

Evaluering af udviklingsprojekt
Rode, C.
Indtægtsdækket virksomhed UK 90 KUP
01/08/2002 → 30/11/2002
Project: Research

Guest Ph.D. student Vit Koverdynsky
Rode, C.
Sam.arb.aftaler - Udenlandske offentlige og private
01/08/2004 → 31/07/2005
Project: Research

Fugtteknisk grundlag for fastsættelse af designværdier for varmeledningsevnen
Rode, C., Rudbeck, C. C. & Dufour, J.
U-værdi tabel efter EU-standarder
Rode, C.
Indtægtsdækket virksomhed UK 90
01/08/2002 → 30/09/2002
Project: Research

EFP2002: Sekretariats bistand, bygninger : Carsten Rode
Rode, C.
Forskningsprojekter - Miljø- og Energiministeriet
01/06/2001 → 31/12/2001
Project: Research

Fugtfordeling i absorberende isoleringsmaterialer: Moisture distribution in absorbent insulation
Rode, C., Peuhkuri, R. H., Padfield, T., Hansen, K. K. & Mortensen, L. H.
Forskningsprojekter - Miljø- og Energiministeriet
01/12/2000 → 30/04/2003
Project: Research

Praktisk U-værdi samt fastlæggelse af korrektionsfaktorer for isoleringsevne/U-værdi ved praktisk udførelse af isolering af bygningskonstruktioner med alternativ/skologisk isolering
Rode, C., Holck, O. & Olsen, L.
Forskningsprojekter - Erhvervsministeriet
01/01/2002 → 30/06/2004
Project: Research

Moisture Buffering of Building Materials: Workshop
Rode, C.
Forsk. Andre offentlige og private - Nordiske
01/01/2003 → 31/12/2003
Project: Research

Activities:

Research activities with DTU’s Department of Civil Engineering of relevance for CHAMPS Development and Application
Rode, C. (Speaker)
1 Jun 2012 → 3 Jun 2012
Activity: Talks and presentations › Conference presentations

5-års seminar om Lavenerghuset i Sisimiut
Rode, C. (Organizer)
2 Jun 2010
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

Press clippings:

Selvstyrelsens boliger i miserabel stand
Carsten Rode
06/09/2012
1 media contribution
Press/Media: Press / Media