
Library of References on Solar Combisystems

**A Report of IEA SHC - Task 26
Solar Combisystems
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Library of References on Solar Combisystems

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A technical report of Subtask A

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1 Library of References on Solar Combisystems

This report describes the compilation and contents of a literature reference library on the topic Solar Combisystems. The references were gathered from the participants of IEA SH&C Task 26 and entered into a data base using the End Note software. The data base can be downloaded from ftp://ftp.sp.se/public/solarcombisystems_references either as an End Note file (*.enl) or as a HTML or RTF file.

2 Background

During the course of IEA SH&C Task 26 a comparatively large number of experts in this field have been working together. The amount of accumulated knowledge is extensive and the essence of it has hopefully been made available through the different deliverables from the project. Nevertheless, there are huge amounts of background material available to those interested, some of it surely adding interesting information to the outcome of Task 26. But left without guidance, the uninitiated knowledge seeker will have difficulties to find the relevant parts. That is where this report is intended to assist. Here, the researchers of Task 26 have made the selection in order to provide the most relevant and interesting work and articles produced within the field of Solar Combisystems for the past ten years. The references have been structured in a small data base using a reference library software, also featuring online searching, reference database management and bibliography-making.

3 Aim

The aim of this work is to support future scientific work within this field by selecting the most relevant references and structuring them in a data base. Hopefully, future work will also be integrated in the database. The latter will only be really efficient if it's arranged in a similar manner as here, with an organisation or a research project hosting the database and a responsible person maintaining it. However, anyone interested can of course continue to develop his or her own database, starting from here.

4 Contents of the reference library

In all, the library now contains 44 references. The references are categorised in reference types: Books, conference proceedings, reports, journal articles and magazine articles. For each reference some basic information is available: Name of author(s), print year, English title, original title, number of pages, keywords, a short abstract and finally information about where the publication is available. In table 1 below, all references are listed, sorted by author and in table 2 the same references are sorted by year of publication.

Table 1: Contents of the reference library sorted by Author

Author/ Editor Name	Reference Title	Year of publication
	Solare Raumheizungsanlagen	1995
	Tagung Solare Raumheizung	1996
	Tagung Solare Raumheizung 1997	1997
	Tagung Solare Raumheizung 1998	1998
	Tagung Solare Raumheizung 1999	1999
	Solare Raumheizungsanlagen	2000
	Tagung Solare Raumheizung 2000	2000
	Tagung Solare Raumheizung 2001	2001
Andersen, N.	Solvarmeanlæg til rumopvarmning og varmt brugsvand. Demonstrationsanlægget i Ejby	1988
Bales, C.	Evaluation of the Performance of Solar Combistores - Comparison of Three Test Methods	2000
Bergmeijer, P. and A. de Geus	Evaluation of the Dutch Second Generation Solar Heating Systems	1988
Dahm, J., et al.	Evaluation of storage configurations with internal heat exchangers	1998
Drück, H. and E. Hahne	Thermal Testing of Stores for Solar Domestic Hot Water Systems	1996
Drück, H. and E. Hahne	Test and Comparison of Hot Water Stores for Solar Combisystems	1998
Eder, M., et al.	Heizen mit der Sonne - Handbuch zur Planung und Ausführung von solaren Heizungssystemen für Einfamilienhäuser	1997
Ellehaug, K.	Målinger på solvarmeanlæg til kombineret brugsvands- og rumopvarmning. 5 markedsførte solvarmeanlæg installeret hos anlægsejerne	1993
Fink, C., Purkarthofer, P., Weiss, W	Systemkonzepte für solare Kombianlagen von Mehrfamilienwohnbauten und Ergebnisse aus Langzeitmessungen	2001
Hausner, R. and C. Fink	Stagnation behaviour of thermal solar systems	2000
Johannesson, K. and J. Persson	Tillförlitlighetsanalys på solvärmda kombisystem	2001
Kovacs, P. and M. Sandberg	Results from Testing of Small Heat Stores for Domestic Hot Water and Space Heating	1998
Kovács, P. and U. Pettersson	Solvärmda kombisystem. En jämförelse mellan vakuumrör och plan solfångare genom mätning och simulering	2002
Letz, T.	Evaluation et suivi des opérations liées au programme européen 1994 de promotion du plancher solaire direct à appoint intégré	1999
Letz, T.	Projet Thermie 75 maisons PSD : bilan du programme	1999
Lorenz, K., C. Bales, and L. Broman	Performance Comparison of Combistanks using a six-day-test	1997
Lorenz, K., C. Bales, and K. Börjesson	Provning av ackumulatorsystem för solvärmeanläggningar	1996
Lorenz, K., C. Bales, and T. Persson	Evaluation of Solar Thermal Combisystems for the Swedish Climate	2000
Lorenz, K., T. Persson, and C. Bales	Comparison of External DHW Load Side Heat Exchange Units for the Production of Domestic Hot Water	1997
Lorenz, K., et al.	Variation of System Performance with Design and Climate for Combisystems in Sweden	1998
Mahler, B., Fisch, M.N., Weiss, W.	Large Scale Solar Heating Systems For Housing Developments	2000

Mikkelsen, S.S.J., L.	Solvarmeanlæg til rumopvarmning. En udredning baseret på to års målinger på anlæg i Greve og Gentofte.	1981
Neumann, C.	Small combined solar systems. Influence of different heating systems and building types on the thermal performance	1996
Obendorfer, G., W. Beckman, and S. Klein	Sensitivity of Annual Solar Fraction of Solar Space Heating and Water Heating Systems to Tank and Collector Heat Exchanger Model Parameters	1999
Pauschinger, T., H. Drück, and E. Hahne	Comparison Test of Solar Heating Systems for Domestic Hot Water and Space Heating	1998
Streicher, W.	Teilsolare Raumheizung, Auslegung und hydraulische Integration	1996
Suter, J.-M., T. Letz, and W. Weiss	Solar Combisystems - Overview 2000	2000
Weiss, W.	Solar Space Heating Under Central European Conditions	2000
Weiss, W., Fink, C., Thür, A.	Low-Energy Housing Estate "Sundays"	2000
Weiss, W.	Solare Raumheizungsanlagen	2000
Weiss, W.(ed.)	IEA-SHC Task 26 Industry Workshop I	1999
Weiss, W.(ed.)	IEA-SHC Task 26 Industry Workshop II	1999
Weiss, W.(ed.)	IEA-SHC Task 26 Industry Workshop III	2000
Weiss, W.(ed.)	IEA-SHC Task 26 Industry Workshop IV	2000
Weiss, W.(ed.)	IEA-SHC Task 26 Industry Workshop V	2001
Weiss, W.(ed.)	Solar heated houses – A design handbook for solar combisystems	2003
Vejen, N.	Undersøgelse af solvarmeanlæg til rum- og brugsvandsopvarmning for "Sol&Træ" v. NNR.	1998
Visser, H., Weiss, W., Streicher, W.	International Attention For Assessment And Optimization Of Solar Combisystems	2001

Table 2: Contents of the reference library sorted by year of publication

Year of publication	Author/ Editor Name	Reference Title
1981	Mikkelsen, S.S.J., L.	Solvarmeanlæg til rumopvarmning. En udredning baseret på to års målinger på anlæg i Greve og Gentofte.
1988	Bergmeijer, P. and A. de Geus	Evaluation of the Dutch Second Generation Solar Heating Systems
1988	Andersen, N.	Solvarmeanlæg til rumopvarmning og varmt brugsvand. Demonstrationsanlægget i Ejby
1993	Ellehauge, K.	Målinger på solvarmeanlæg til kombineret brugsvands- og rumopvarmning. 5 markedsførte solvarmeanlæg installeret hos anlægsejerne
1995		Solare Raumheizungsanlagen
1996	Lorenz, K., C. Bales, and K. Börjesson	Provning av ackumulatorsystem för solvärmeanläggningar
1996	Neumann, C.	Small combined solar systems. Influence of different heating systems and building types on the thermal performance
1996		Tagung Solare Raumheizung
1996	Streicher, W.	Teilsolare Raumheizung, Auslegung und hydraulische Integration
1996	Drück, H. and E. Hahne	Thermal Testing of Stores for Solar Domestic Hot Water Systems

1997	Lorenz, K., T. Persson, and C. Bales	Comparison of External DHW Load Side Heat Exchange Units for the Production of Domestic Hot Water
1997	Eder, M., et al.	Heizen mit der Sonne - Handbuch zur Planung und Ausführung von solaren Heizungssystemen für Einfamilienhäuser
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1997		Tagung Solare Raumheizung 1997
1998	Pauschinger, T., H. Drück, and E. Hahne	Comparison Test of Solar Heating Systems for Domestic Hot Water and Space Heating
1998	Dahm, J., et al.	Evaluation of storage configurations with internal heat exchangers
1998	Kovacs, P. and M. Sandberg	Results from Testing of Small Heat Stores for Domestic Hot Water and Space Heating
1998		Tagung Solare Raumheizung 1998
1998	Drück, H. and E. Hahne	Test and Comparison of Hot Water Stores for Solar Combisystems
1998	Vejen, N.	Undersøgelse af solvarmeanlæg til rum- og brugsvandsopvarmning for "Sol&Træ" v. NNR.
1998	Lorenz, K., et al.	Variation of System Performance with Design and Climate for Combisystems in Sweden
1999	Letz, T.	Evaluation et suivi des opérations liées au programme européen 1994 de promotion du plancher solaire direct à appoint intégré
1999	Weiss, W.(ed.)	IEA-SHC Task 26 Industry Workshop I
1999	Weiss, W.(ed.)	IEA-SHC Task 26 Industry Workshop II
1999	Letz, T.	Projet Thermie 75 maisons PSD : bilan du programme
1999	Obendorfer, G., W. Beckman, and S. Klein	Sensitivity of Annual Solar Fraction of Solar Space Heating and Water Heating Systems to Tank and Collector Heat Exchanger Model Parameters
1999		Tagung Solare Raumheizung 1999
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2000	Bales, C.	Evaluation of the Performance of Solar Combistores - Comparison of Three Test Methods
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2000	Weiss, W.(ed.)	IEA-SHC Task 26 Industry Workshop IV
2000	Mahler, B., Fisch, M.N., Weiss, W.	Large Scale Solar Heating Systems For Housing Developments
2000	Weiss, W., Fink, C., Thür, A.	Low-Energy Housing Estate "Sundays"
2000	Suter, J.-M., T. Letz, and W. Weiss	Solar Combisystems - Overview 2000
2000	Weiss, W.	Solar Space Heating Under Central European Conditions
2000		Solare Raumheizungsanlagen
2000	Weiss, W.	Solare Raumheizungsanlagen
2000	Hausner, R. and C. Fink	Stagnation behaviour of thermal solar systems
2000		Tagung Solare Raumheizung 2000
2001	Johannesson, K. and J. Persson	Tillförlitlighetsanalys på solvärmda kombisystem
2001	Weiss, W.(ed.)	IEA-SHC Task 26 Industry Workshop V
2001	Visser, H., Weiss, W., Streicher, W.	International Attention For Assessment And Optimization Of Solar Combisystems
2001	Fink, C., Purkarthofer, P.,	Systemkonzepte für solare Kombianlagen von

	Weiss, W		Mehrfamilienwohnbauten und Ergebnisse aus Langzeitmessungen
2001			Tagung Solare Raumheizung 2001
2002	Kovács, P. U.Pettersson	and	Solvärmda kombisystem. En jämförelse mellan vakuumrör och plan solfångare genom mätning och simulering
2003	Weiss, W. (ed.)		Solar heated houses - A design handbook for solar combisystems

5 The reference library software

For the compilation of this database an application software, End Note from Isi Research Soft, has been used. This program can gather and maintain bibliographic references, integrate online searching, reference database management, and bibliography-making and also features Internet connection to hundreds of libraries. Of course, the modest size of this database makes it maybe even easier to maintain in a more general and widespread software. However, the choice of the group was to use this more specialised program.

Three export formats are available: RTF, plain text and HTML

6 Documents for download

On ftp://ftp.sp.se/public/solarcombisystems_references the database contents in 3 different formats can be downloaded. The formats are *.enl, *.txt and *.htm. For those interested in exploring the data base using the End Note program, an 30 days free trial version of the software can be downloaded from <http://www.isiresearchsoft.com/>. Some guidance for the use of the software is also given in the document "references manual.doc" at the ftp-address above.