

The Research Centre on Zero Emission Buildings – ZEB

Publications

2010

Vitenskapelige/faglige publikasjoner

E. Sveipe, B. P. Jelle, E. Wegger, S. Uvsløkk, S. Grynning, J. V. Thue, B. Time and A. Gustavsen, *Improving Thermal Insulation of Timber Frame Walls by Retrofitting with Vacuum Insulation Panels – Experimental and Theoretical Investigations*”, Submitted for publication in *Journal of Building Physics*, 2010 (partly accepted already, but has to be shortened down).

Wegger, E., Jelle B.P., Sveipe E., Grynning, S., Baetens R., Thue, J.V *Journal of Building Physics*, 2010: *Ageing Effects on Thermal Properties and Service Life of Vacuum Insulation Panels*, *Journal of Building Physics*, 2010

<http://dx.doi.org/10.1177/1744259111398635>

Gustavsen, A., Goudey, H., Uvsløkk, S., Talev, G., Arasteh, D., Kohler, C., and Jelle, B.P. 2010: *Experimental Examination of the Thermal Transmittance of High Performance Window Frames and Comparison with Numerical Simulations*. Thermal Performance of the Exterior Envelopes of Whole Buildings XI International Conference, December 5-9, 2010. Clearwater Beach, Florida.

http://www.techstreet.com/cgi-bin/detail?product_id=1785354

Jelle, B.P., Gustavsen, A., Grynning, S., Wegger, E., Sveipe, E., and Baetens, R.: *Nano Technology and Possibilities for the Thermal Building Insulation Materials of Tomorrow*, Renewable Energy Research Conference, Trondheim, Norway, 7 – 8 June, 2010.

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Gao, T., Gustavsen, A. and Jelle, B.P.

Nanoelectrochromics with Applied Materials and Methodologies, Renewable Energy Research Conference, Trondheim, Norway, 7 – 8 June, 2010.

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Sunliang, C., Haavi T., Gustavsen A., Uvsløkk S., Jelle, B.P., Maunuksela, J., Grynning, S., 2010: *The Thermal Performance of Wall-Integrated Phase Change Material Panels – Hot Box Experiments*, Renewable Energy Research Conference, Trondheim, Norway, 7 – 8 June, 2010.

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Wegger, E., Jelle B.P., Sveipe E., Grynning, S., Gustavsen A., Thue, J.V., 2010:

Accelerated Ageing of Vacuum Insulation Panels, Renewable Energy Research Conference, Trondheim, Norway, 7 – 8 June, 2010.

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Sveipe, E., Jelle, B.P., Wegger, E., Gustavsen, A., Grynning, S., Thue, J.V., Uvsløkk, S., 2010:

Application of Vacuum Insulation Panels in Retrofitting of Timber Frame Walls – An Experimental and Theoretical Study of Moisture, Thermal Performance and Robustness, Renewable Energy Research Conference, Trondheim, Norway, 7 – 8 June, 2010.

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Jelle, B.P., Gustavsen, A., 2010:

Dynamic Solar Radiation Control in Buildings by Applying Electrochromic Materials, Renewable Energy Research Conference, Trondheim, Norway, 7 – 8 June, 2010.

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E. Sveipe, B. P. Jelle, E. Wegger, S. Uvsløkk, J. V. Thue, S. Grynning and A. Gustavsen, *Retrofitting of Timber Frame Walls by Application of Vacuum Insulation Panels and Investigations of Moisture Robustness*, Submitted for publication in *Proceedings of the 12th International Conference on Durability of Building Materials and Components*, Porto, Portugal, 12-15 April, 2011.

E. Wegger, B. P. Jelle, E. Sveipe, S. Grynning, R. Baetens and J. V. Thue, *Effect of Ageing on Service Life of Vacuum Insulation Panels*", (Extended Abstract Paper), *Proceedings of the Building Enclosure Science & Technology (BEST 2 - 2010)*, Portland, Oregon, U.S.A., 12-14 April, 2010.

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E. Wegger, B. P. Jelle, E. Sveipe, S. Grynning, A. Gustavsen and J. V. Thue, *Accelerated Laboratory Ageing of Vacuum Insulation Panels*, Submitted for publication in *Proceedings of the 12th International Conference on Durability of Building Materials and Components*, Porto, Portugal, 12-15 April, 2011.

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Sartori, I., Andresen, I. and Dokka, T. H. (2010) ZEB Definition: Assessing the Implications for Design, *Renewable Energy Research Conference*, 7-8 June, Trondheim, NO.

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Sartori, I., Candanedo, J. A., Geier, S., Lollini, R., Garde, F., Athienitis, A. and Pagliano, L. (2010) Comfort and Energy Efficiency Recommendations for Net Zero Energy Buildings, *EuroSun Conference*, 28 Sep. – 10 Oct., Graz, AT.

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Berker, Thomas. Domesticating the built environment. 2nd workshop on social architecture; Brussels, 2010-05-26 - 2010-05-27

Berker, Thomas. Sustainable innovation in the building sector. A user perspective. Annual meeting of the Society for the Social Study of Science (4S); Tokyo, 2010-08-25 – 2010-08-29

Berker, Thomas. Towards zero emission buildings, settlements and cities. An introduction. EASST conference: Practicing Science and Technology, Performing the Social; Trento; 2010-09-02 – 2010-09-04

Berker, Thomas. Sustainable innovation in the building sector. An overview. Transition workshop; Trondheim; 2010-10-05

Hauge, Åshild Lappégard; Thomsen, Judith; Berker, Thomas. User evaluations of passive houses and low energy buildings – Literature Review and Further Research. I: *Renewable Energy Research Conference 2010 - Zero Emission Buildings*. Tapir Akademisk Forlag 2010 ISBN 978-82-519-2623-2. s. 97-108
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Rapporter

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Jahren, S., Olafsen, K., Larsen, Å. 2010:

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Andresen, I., K.E. Thomsen and Å. Wahlström, “Nordic Analysis of Climate Friendly Buildings”, Report to the Nordic Council of Ministers, September 1, 2010.

Andresen, I. m.fl. ”Miljøvennlig varmforsyning til lavenergi- og passivhus. En casesstudie”, Prosjektrapport 59, 2010, SINTEF Byggforsk.

Abstracts, presentasjoner og foredrag

Gao, T., Gustavsen, A., and Jelle, B.P., 2010:

Nanoelectrochromics: Materials and methodologies, International Conference on “Nano/Molecular Photochemistry and Nanomaterials for Green Energy Development” Solar’10, 14 - 17 February 2010, Cairo, Egypt.

Jelle, B.P., Noreng, K., Time, B., and Gustavsen, A., 2010:

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Snow downfall on solar cell roofs - How to maximize solar efficiency? International Conference on “Nano/Molecular Photochemistry and Nanomaterials for Green Energy Development” Solar’10, 14 - 17 February 2010, Cairo, Egypt.

Birgit Risholt, phd student, *Oppgraderig av et type hus fra 80-tallet til en energieffektiv bolig etter framtidens standard – hva gjør vi da?*, NTNU/ Zero Emission Buildings TreUka, Trondheim 17.09.2010

T.J.Berglind -*Aerogel in Expanded polystyrene (EPS)experimental investigations*, ZEB Workshop on Optimal Thermal Performance, Trondheim 18.08.2010.

S.Cao, A.Gustavsen, S.Uvsløkk, B.P.Jelle, J.Gilbert, J.Maunuksela -*The Effect of Wall-Integrated Phase Change Material Panels on the Indoor Air and Wall Temperature –Hot-box Experiments*, ZEB Workshop on Optimal Thermal Performance, Trondheim 18.08.2010.

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B.P.Jelle, E.Wegger, E.Sveipe, A.Gustavsen,O.Aunrønning, E.Rognvik, B.Time, J.V.Thue, S.Grynning, S.Uvsløkk, R.Baetens -*Vacuum Insulation Panels-Experimental Investigations ofDurability and Application in Retrofitting*, ZEB Workshop on Optimal Thermal Performance, Trondheim 18.08.2010.

Pär Johansson - *Retrofitting with VIPsCase study: house from the 1930’s*, ZEB Workshop on Optimal Thermal Performance, Trondheim 18.08.2010.

Dr.Ing.Libor Kubina - *weber.therm LockPlate System ETICS with integrated VIP*, ZEB Workshop on Optimal Thermal Performance, Trondheim 18.08.2010.

Thor-Oskar Relander - *IPredicting the airtightness of wood-frame houses*, ZEB Workshop on Optimal Thermal Performance, Trondheim 18.08.2010.

S.Uvsløkk - *Optimization of thermal performance in traditional wood-frame and masonry walls*, ZEB Workshop on Optimal Thermal Performance, Trondheim 18.08.2010.

Sartori, I. (2010) ZEB definitions, *Zero Emission Buildings – PhD course*, 1st November, Trondheim, NO.

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Andresen, I. ”Zero Emission Buildings – A National Research Centre”, lecture at the *Renewable Energy Research Conference - Renewable Energy Beyond 2020*, Trondheim June 7, 2010.

Andresen, I. ”Hvor kan det spares, og hvordan går vi frem”, foredrag ved SINTEF-seminaret *Kan vi effektivisere oss ut av energikrisen*, Radisson Blue Scandinavia Hotel, Oslo 3. juni 2010.

Andresen, I. "Forskningssenter for miljøvennlig energi: Zero Emission Buildings", presentasjon på konferansen *Energologi mot 2020*, arrangert av YIT, Stavanger Kunstmuseum, 23. september 2010.

Andresen, I. "Zero Emission Buildings – A National Research Centre", lectures at 2 municipalities near Vilnius, Lithuania, September 28-29, 2010.

Andresen, I. "Zero Emission Buildings – A National Research Centre", lecture at VTT conference Helsinki, October 19, 2010.

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Dokka TH "Fremtidens miljøkrav – byggebransjens transformasjon de neste 30 årene –" Presentasjon på Veidekke seminar, Oslo, 11.06.2010.

Dokka TH "Fra energisluk til nullenergihus – Hvor god tid har vi ? -" Åpent seminar arrangert av SWECO, Sandnes, 15.09.2010

Dokka TH "Nye standarder for passivhus – NS 3700 og NS 3701/Prosjektrapport 42 -" Åpent seminar arrangert av SWECO, Sandnes, 15.09.2010

Dokka TH " Eksempler på løsninger – Passivhus/lavenergi – Må nye bygg reises I telt -" Åpent seminar arrangert av SWECO, Sandnes, 15.09.2010

Dokka TH, "Passivhus- og nullenergibygg – Hvordan skal trevarefabrikkene bidra ? -" NTLs fagkonferanse, Drammen, 03.11.2010

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Hestnes, A.G., "Fremtidens bygninger – et svar på klimautfordringen?", Foredrag på NTVA's julemøte, Trondheim, 10.12.10.

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Ageing Effects on Thermal Properties and Service Life of Vacuum Insulation Panels, Student project work NTNU, Trondheim, 17.12, 2009

Agneta Skrede, 2010:

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