



A Comparison of the Energy Saving and Carbon Reduction Performance between Reinforced Concrete and Cross-Laminated Timber Structures in Residential Buildings in the Severe Cold Region of China

<https://research.thinkwood.com/en/permalink/catalogue1207>

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Publisher: MDPI

Year of Publication: 2017

Country of Publication: Switzerland

Format: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Energy Performance
Environmental Impact

Keywords: Energy Consumption
Carbon Emissions
Residential
Severe Cold Regions
Simulation
Reinforced Concrete
Life-Cycle Assessment

Language: English

Research Status: Complete

Series: Sustainability

ISSN: 2071-1050

Abstract:

This paper aims to investigate the energy saving and carbon reduction performance of cross-laminated timber residential buildings in the severe cold region of China through a computational simulation approach. The authors selected Harbin as the simulation environment, designed reference residential...

Online Access: Free

Resource Link

<https://doi.org/10.3390/su9081426>



Energy Saving and Carbon Reduction in the Operation Stage of Cross Laminated Timber Residential Buildings in China

<https://research.thinkwood.com/en/permalink/catalogue1208>

Author: Haibo Guo
Ying Liu
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Publisher: MDPI

Year of Publication: 2017

Country of Publication: Switzerland

Format: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Energy Performance

Keywords: Energy Consumption
Carbon Emissions
Reinforced Concrete
China
Climate Zones
Simulation

Language: English

Research Status: Complete

Series: Sustainability

ISSN: 2071-1050

Abstract:

This paper focused on energy consumption and carbon emission for heating and cooling during a building's operation stage, and examined the energy effects of using Cross Laminated Timber (CLT) as an alternative building material to reinforced concrete (RC) in China's 31 key cities located in different climate zones...

Online Access: Free

Resource Link

<https://doi.org/10.3390/su9020292>



Innovation in Hybrid Mass Timber High-Rise Construction: A Case Study of UBC's Brock Commons Project

<https://research.thinkwood.com/en/permalink/catalogue1273>

Author: Azadeh Fallahi
Organization: University of British Columbia
Year of Publication: 2017
Country of Publication: Canada
Format: Thesis
Material: CLT (Cross-Laminated Timber)
Glulam (Glue-Laminated Timber)
PSL (Parallel Strand Lumber)
Application: Hybrid Building Systems
Topic: General Information
Keywords: High-Rise
Construction
Design
Prefabrication
Project Coordination
Virtual Design and Construction
Language: English
Research Status: Complete
Online Access: Free

Resource Link

<http://doi.org/10.14288/1.0345634>



Investigating the Performance of the Construction Process of an 18-storey Mass Timber Hybrid Building

<https://research.thinkwood.com/en/permalink/catalogue1269>

Author: Mohamed Kasbar
Organization: University of British Columbia
Year of Publication: 2017
Country of Publication: Canada
Format: Thesis
Material: CLT (Cross-Laminated Timber)
Application: Hybrid Building Systems
Wood Building Systems
Topic: General Information
Market and Adoption
Keywords: Brock Commons
Construction
Efficiency of Construction
Language: English
Research Status: Complete
Online Access: Free

Resource Link

<http://doi.org/10.14288/1.0347252>



Modeling of Orthotropic Plates out of Cross Laminated Timber in the Mid and High Frequency Range

<https://research.thinkwood.com/en/permalink/catalogue1352>

Author: Christoph Winter
Martin Buchschmid
Gerhard Müller

Publisher: ScienceDirect

Year of Publication: 2017

Country of Publication: Netherlands

Format: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: General Application

Topic: General Information

Keywords: Finite Element Model
Statistical Energy Analysis
Frequency
Orthotropic Plates

Language: English

Research Status: Complete

Series: Procedia Engineering

Online Access: Free

Resource Link

<https://doi.org/10.1016/j.proeng.2017.09.373>



Parametric and Generative Design Techniques for Mass-Customization in Building Industry: A Case Study for Glued-Laminated Timber

<https://research.thinkwood.com/en/permalink/catalogue1351>

Author: Gabriele Monizza
Erwin Rauch
Dominik Matt

Publisher: ScienceDirect

Year of Publication: 2017

Country of Publication: Netherlands

Format: Journal Article

Material: Glulam (Glue-Laminated Timber)

Application: General Application

Topic: General Information
Design and Systems

Keywords: Research
Building Industry
Mass-Customization
Production
Parametric Design
Generative Design

Language: English

Research Status: Complete

Series: Procedia CIRP

Online Access: Free

Resource Link

<https://doi.org/10.1016/j.procir.2017.01.051>