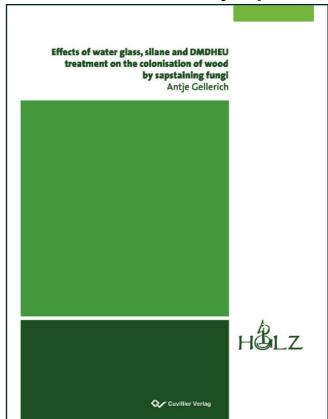


## Antje Gellerich (Autor)

## Effects of water glass, silane and DMDHEU treatment on the colonisation of wood by sapstaining fungi



https://cuvillier.de/de/shop/publications/411

Copyright:

Cuvillier Verlag, Inhaberin Annette Jentzsch-Cuvillier, Nonnenstieg 8, 37075 Göttingen, Germany

Telefon: +49 (0)551 54724-0, E-Mail: info@cuvillier.de, Website: https://cuvillier.de

## TABLE OF CONTENTS

CHA	PTER	1 GENERAL INTRODUCTION	1
1	Introduction		1
1.1	Wood	l protection	1
1.2	Wood	d modification	2
1.	2.1	DMDHEU	3
1.2.2		Silanes	5
1.2.3		Water glass	6
1.3	Infest	ation of wood by fungi	7
1.	3.1	Wood degrading fungi	8
1.	3.2	Protection mechanisms of modified wood against decay fungi	9
1.	3.3	Staining fungi	10
1.4	Disco	loration of wood surfaces by photodegradation	11
1.	4.1	Photodegradation of outside exposed wood	12
1.5	Objec	etives	12
1.6	Refer	ences	15
СНА	PTER	2 MOISTURE PROPERTIES	23
Sorption behaviours of modified wood			23
2	Intro	luction	23
3	Mate	rial and methods	25
3.1	Treat	ment of wood	25
3.2 Deter		mination of WPG	26
3.3	Deter	mination of EMC	26
4	Resul	ts and discussion	27
5	Refer	ences	35
Mois	Moisture conditions on the surface of outside weathered modified wood		
6	Intro	luction	37
7	Mate	rial and Methods	38
7.1	Treatment of wood		38
7.2	Calib	ration of the electric measurement system	39

7.3	Data logger and electrodes			
7.4	Outside exposure			
8	Results and Discussion			
8.1	Calibration of the measurement system			
8.2	Outside exposure			
9	References			
СНА	PTER 3 Publications	5		
10	Overview	5:		
11 glass	Laboratory tests of the performance of DMDHEU, siloxane and water modified wood against blue stain fungi	50		
12 wood	Effects of Water glass and DMDHEU treatment on the colonisation of by Aureobasidium pullulans	69		
13 DMD	Weathering characteristics of wood treated with water glass, siloxane of HEU	r 83		
14	Fungal colonization of outside weathered modified wood	103		
СНА	PTER 4 GENERAL DISCUSSION AND CONCLUSION	11′		
15	General Discussion and Conclusions	11′		
15.1	General	11′		
15.2	DMDHEU	118		
15.3	Water glass	12		
15.4	Siloxane			
16	Conclusions	124		
17	References	120		
СНА	PTER 5 LIST OF PUBLICATIONS	129		
CUR	RICULUM VITAE - LEBENSLAUF	13		