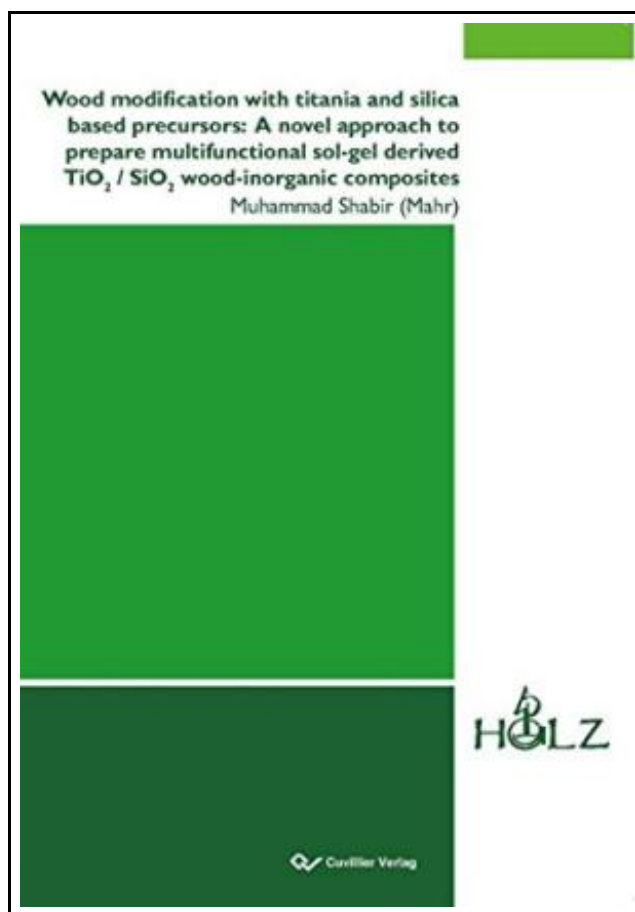


Wood modification with titania and silica based precursors



Filesize: 8.06 MB

Reviews

The ebook is straightforward in go through preferable to recognize. It typically does not charge too much. Its been designed in an exceptionally straightforward way and it is just following i finished reading this book where basically altered me, affect the way i really believe.

(Dr. Reta Murphy)

WOOD MODIFICATION WITH TITANIA AND SILICA BASED PRECURSORS



Cuvillier Verlag Nov 2013, 2013. Taschenbuch. Book Condition: Neu. 211x146x4 mm. Neuware - This dissertation is devoted to explicitly investigate the suitability of titania and silica based precursors for wood modification. Novel TiO_2 / SiO_2 wood inorganic composites were prepared by two-step process. In first step, freshly prepared precursor solutions of silicon and titanium alkoxides were vacuum impregnated (one or more cycles) to oven dried pine sapwood (*Pinus sylvestris* L.). Precursor solutions with nano-scaled species and particulates (TiO_2 and SiO_2) were soaked by the entire wood matrix during this step. In (second) subsequent curing step, these penetrating liquids transformed into respective gel layers and depositions therein by sol-gel processing (in-situ hydrolysiscondensation). Sol-gel based depositions were evenly covered on the cell walls in the form of thin layers. These gel films were not crack-free however; very few cracks were visible in the gel coatings present within the wood matrix of composites prepared with precursors of low alkoxide content. In addition, the gels were randomly distributed, found to be mainly deposited in the wood cell lumen and also localized in the cell walls as ESEM-EDX mapping revealed. The impregnated samples show an increase in mass and volume expressed as eight percent gain (WPG) and bulking (B). Both of the parameters are decisive for tailoring a number of physical properties of the resultant composites. In general, moisture and water sorption capacities were decreased by 43 to 50 % while antismelling efficiency (ASE) and bending strength (MOE) of the precursor-modified wood (composite) were increased up to 34 % and 41 % respectively, when compared to unmodified wood. These improvements are attributed mainly to gel depositions in the wood structure that physically interact with the wood matrix consequently narrowing the main flow passages there and reinforcing strengths of the fiber. These materials show superior resistance...



Read Wood modification with titania and silica based precursors Online

Download PDF Wood modification with titania and silica based precursors

Other Books



Psychologisches Testverfahren

Reference Series Books LLC Nov 2011, 2011. Taschenbuch. Book Condition: Neu. 249x191x7 mm. This item is printed on demand - Print on Demand Neuware - Quelle: Wikipedia. Seiten: 100. Kapitel: Myers-Briggs-Typindikator, Keirsey Temperament Sorter, DISG,...

[Read Book »](#)



Programming in D

Ali Cehreli Dez 2015, 2015. Buch. Book Condition: Neu. 264x182x53 mm. This item is printed on demand - Print on Demand Neuware - The main aim of this book is to teach D to readers...

[Read Book »](#)



Good Tempered Food: Recipes to love, leave and linger over

Clearview. Paperback. Book Condition: new. BRAND NEW, Good Tempered Food: Recipes to love, leave and linger over, Tamasin Day-Lewis, Slow-cooked food and what the author likes to call 'good tempered food', is what proper cooking...

[Read Book »](#)



The Official eBay Guide: To Buying, Selling and Collecting Just About Everything

Simon & Schuster Ltd. Paperback. Book Condition: new. BRAND NEW, The Official eBay Guide: To Buying, Selling and Collecting Just About Everything, Laura Fisher Kaiser, Michael Kaiser, Omidyar, Pierre, HAPPY HUNTING(TM) ON eBay Aunt Fannie's...

[Read Book »](#)



My Brother is Autistic

Barron's Educational Series Inc.,U.S. Paperback. Book Condition: new. BRAND NEW, My Brother is Autistic, Jennifer Moore-Mallinos, Medical experts are just beginning to understand varying degrees of autism and its impact on both the autistic child...

[Read Book »](#)



Fart Book African Bean Fart Adventures in the Jungle: Short Stories with Moral (Paperback)

Createspace, United States, 2013. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.Black White Illustration Version! BONUS - Includes FREE Dog Fart Audio Book for

[Download eBook »](#)



Kingfisher Readers: Record Breakers - the Biggest (Level 3: Reading Alone with Some Help) (Unabridged)

Pan Macmillan. Paperback. Book Condition: new. BRAND NEW, Kingfisher Readers: Record Breakers - the Biggest (Level 3: Reading Alone with Some Help) (Unabridged), Claire Llewellyn, For the first time, Kingfisher brings its expertise in beautifully-designed,

[Download eBook »](#)



Music for Children with Hearing Loss: A Resource for Parents and Teachers (Paperback)

Oxford University Press Inc, United States, 2014. Paperback. Book Condition: New. 228 x 156 mm. Language: English . Brand New Book. Written by an expert in the field who is both a teacher and a

[Download eBook »](#)



Who Am I in the Lives of Children? an Introduction to Early Childhood Education, Enhanced Pearson Etext with Loose-Leaf Version -- Access Card Package

Pearson, United States, 2015. Book. Book Condition: New. 10th. 250 x 189 mm. Language: English . Brand New Book. NOTE: Used books, rentals, and purchases made outside of Pearson If purchasing or renting from companies

[Download eBook »](#)



Peppa Pig: Camping Trip - Read it Yourself with Ladybird: Level 2

Penguin Books Ltd. Paperback. Book Condition: new. BRAND NEW, Peppa Pig: Camping Trip - Read it Yourself with Ladybird: Level 2, Peppa Pig and her family are going on holiday in their campervan. Find

[Download eBook »](#)