

CHEMARTS

Aalto University school of Arts, Design and Architecture

Hosted by: Department of Design, Aalto University

Project Information (EN)

Intension by Megan McGlynn

Intension is an experimental design project that combines areas of sculpture, chemistry, and sustainability. It is centred around the interaction of two renewable materials: bioplastic (PLA) and nanocellulose. Shrinkage is an intrinsic quality of drying cellulosic materials. When water evaporates from nanocellulose, the fibrils are pulled tightly together and form strong chemical bonds. Encasing various shapes between layers of nanocellulose creates tension in specific directions and produces self-forming curvatures.

Lignin as colorant by Pia Johansson

Lignin is one of the three main components of wood. Could the deep brown color of lignin be used in textile industry in the future? In this project design student Pia Johansson is exploring how the limited color palette based on lignin and some other natural dyes can be used to create woven and printed textiles. In addition to beautiful colors ranging from light beige to darker brown the textiles have good fastness to washing and rubbing. The project is part of the Biocolour research project.

Bio-(floral) Foam by Irene Purasachit

Floral foam is widely used in modern floral arrangements. The current foam available in the market is phenol-formaldehyde foam which is essentially an oil-based material with several toxic chemicals. This Bio-(floral) Foam is made of 100% fibre from flower stem (mainly carnation and iris). The material aims to simulate and act as an alternative for floral foam. Therefore, it has the properties to absorb and retain water together with the ability to hold flowers. The material is biodegradable, contain no oil-based ingredient or additive, is made of 100% flower waste and is microplastic-free.

Projectinformatie (NL)

Intension by Megan McGlynn

Intension is een experimenteel ontwerp project dat gebieden als ontwerp, chemie en duurzaamheid combineert. Het is gecentreerd rond de interactie van twee hernieuwbare materialen: bioplastic (PLA) en nanocellulose. Wanneer water uit nanocellulose verdampt ontstaat er Krimp, de fibrillen worden strak samengetrokken en vormen een sterke chemische bindingen.

Lignin as colorant by Pia Johansson

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Image List

Filename	Caption	Credit
samplewall-01-copy_1660577420.jpg	Intension	Megan McGlynn
satu-paavonsalovalentin-schwarz-chemarts-2022-03-photo-rainer-paananen_1666331752.jpg	Bio Bubble Wrap	Satu Paavonsalo & Valentin Schwarz,
pia-johansson-chemarts-2022-1-photo-iines-jakovlev_1666331501.jpg	Lignin as Colorant	Pia Johansson
flowermatter-irenepurasachit-floralfoam-studio-1light_1661274419.jpg	Bio-(floral) Foam	Iines Jakovlev
iines-jakovlev-chemarts-2022-3-photo-iines-jakovlev_1666331643.jpg	Foraged Fibers	

The images above are included in the ZIP under /images.