



Delft University of Technology

## Exploring the Structure, Properties, and Applications of Highly Ordered Bionanocomposites

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## **Propositions**

Belonging to the thesis:

*Exploring the design, characterisation, and application of highly ordered bionanocomposites*

1. The order parameter of clay platelets can be successfully calculated by using two different models, but can only be described by one (Chapter 2).
2. The alignment of alginate coils in the xy-plane tells us if the relaxation times of the physical gels are slower or faster than the evaporation rate. (Chapter 3).
3. The level of alignment of sodium alginate/montmorillonite bionanocomposite can be determined from the translucency of the system (Chapter 2).
4. The Halpin-Tsai model assumes that the properties of each component are independent of one another, however it can also be used to verify if this is indeed the case (in nanocomposites). (Chapter 4).
5. Simple models are found to be tremendously successful in predicting the behavior of a complex system.
6. Cooking and research have a positive effect on each other.
7. Interdisciplinarity leads to less biasedness in research.
8. Research should be directed more towards observation than to searching.
9. "I love deadlines. I love the whooshing noise they make as they go by." (D. Adams, The Salmon of Doubt)
10. Omission of Friday afternoon from laboratory safety reports is beneficial for innovation.

These propositions are considered opposable and defensible and as such have been approved by the promotor prof. dr. Stephen J. Picken and prof. dr.ir. Klaas van Breugel.