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Master Thesis - Polysaccharides for crop protection

Adaption to climate change and a growing world population require smart and sustainable methods for a resilient food production. Polysaccharides and their derivatives are very attractive materials for crop protection due to their natural abundance, their versatile chemical and physical properties, and their biodegradability in moist soil or water. Depending on the chemical composition and formulation, polysaccharides have the ability to protect crops at different stages of growth, and therefore potentially enhance yields and reduce the need for additional agricultural input. This master thesis aims at investigating polysaccharide derivatives and material formulations made thereof for the protection of important vegetable crops.

For your thesis you will:

- chemically modify a series of polysaccharides
- process polysaccharides into formulations suitable for agriculture
- characterize the chemical structure and physical properties of the polysaccharides and their formulations
- apply the formulations and test their efficacy for crop protection



You should:

- contact us if you are very enthusiastic about this topic
- have a background in chemistry, polymer or material science
- enjoy working in a dynamic, motivated and cooperative environment

Contacts:

- Prof. Dr. Karin Stana Kleinschek; karin.stanakleinschek@tugraz.at
- Assoc. Prof. Dr. Rupert Kargl; rupert.kargl@tugraz.at

Institute of Chemistry and Technology of Biobased Systems (IBIOSYS)

<https://www.tugraz.at/institute/ibiosys/home/>

Stremayrgasse 9

8010 Graz

+43 (316) 873 - 32071

ibiosys@tugraz.at