

**Title:**

**Studies on the conformation and rheological properties of pectins depending on the postharvest maturity of the plant source (Opus 26)**

**Abstract**

Call for **PhD student position (4 years)** at the Microstructure and Mechanics of Biomaterials (MMB) Institute of Agrophysics, Polish Academy of Sciences (IAPAS), Lublin, Poland.

Institute of Agrophysics (Polish Academy of Sciences) is offering 4-years PhD position in the group of dr. Justyna Cybulska ([j.cybulska@ipan.lublin.pl](mailto:j.cybulska@ipan.lublin.pl)) at MMB in the project on **the conformation and rheological properties of pectins depending on the postharvest maturity of the plant source**. The project aims for a comprehensive understanding of pectin functionality, i.e. hydrodynamic and osmotic properties in various environments, with relation to the source, molecular structure, and solution properties. Various protocols for polysaccharides extraction have been already developed at MMB. The PhD student will study the physical, chemical and rheological properties of the pectins extracted from apples in various stage of postharvest maturity. The position is supported by the National Science Centre, Poland grant (Opus 26).

**IAPAS** (<https://www.ipan.lublin.pl/en/>) is a research institution of the Polish Academy of Sciences. **MMB Team** at IAPAS focuses on the multiscale structure and mechanics of polysaccharides and biomaterials and pays particular attention to fruit and vegetables due to their agricultural and nutritional importance. Additional information: [www](#) of MMB, [LinkedIn](#).

**REQUIREMENTS:**

Highly motivated and ambitious candidates are encouraged to apply. We require:

- Excellent teamwork skills.
- Master degree in physics, biophysics, chemistry, food technology or related scientific disciplines.
- English communication skills.

An experience in HPLC and/or AFM imaging will be beneficial. Candidates should have experience in laboratory work and knowledge on plant cell wall assembly.