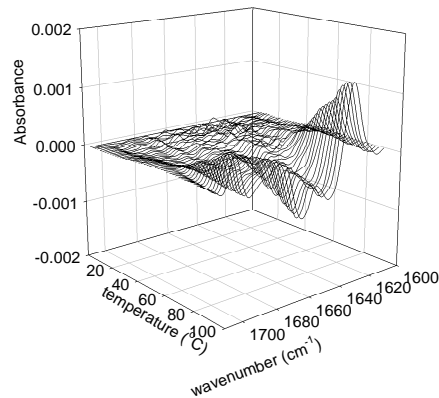
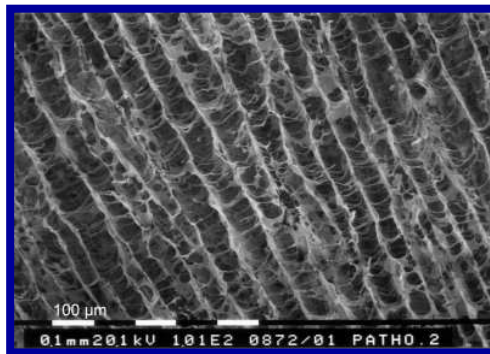


MSc Project

Mechanical Engineering / Biomedical Engineering

Freeze-drying of Scaffolds Studied by CT and FTIR



Project description:

Freeze-drying is a method for long-term preservation of scaffolds and tissues, which is often used in biomedical engineering. The ability to successfully dry biological material, however, requires the addition of protective agents to prevent structural alterations during the usually damaging freeze-drying process. Therefore, the scaffold has to be loaded with protectants. The distribution of added protectants (i.e. sugars) and its effect on macromolecular structure and stability are still open questions? Computer Tomography (CT) and Fourier Transform Infrared Spectroscopy (FTIR) are ideally suited to answering these questions.

Type of work: experimental

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