

Synthesis of polymers with sol-gel behavior for tissue regeneration

DESCRIPTION OF THE TECHNOLOGY

AIMPLAS has developed different copolymers through synthesis methodologies that are based on lactic and glycolic acid. This copolymer presents a SOL-GEL behaviour in aqueous solution. Those aerogels have the capacity to shift from SOL to GEL

at different temperatures, and can be modulated with the formulation. The viscosity and gelification is adaptable depending on the polymer molecular weight, monomers ratio, and the concentration.

MARKET APPLICATION SECTORS

- o Maxillofacial surgery
- o Gum surgery
- o Injuries repair
- o Internal ulcers repair
- o damaged tissue repair

TECHNICAL ADVANTAGES AND BUSINESS BENEFITS

The technology offers the following advantages and benefits:

- invasive treatment reduction and therefore more effectiveness
- less patient aftercare surgery
- cost reduction

CURRENT STATE OF DEVELOPMENT

Fully developed. Just need to be adapted to different biomedical applications

INTELLECTUAL PROPERTY RIGHTS

The owner is the company that the develop was made for. Although AIMPLAS has the right to apply the method to the new materials development for different applications than the ones of the owner company.

COLABORATION SOUGHT

Companies interested in the following systems of cooperation:

-) Agreement about Research & Development for implementing and qualifying the product and the manufacturing method depending on the application.
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RELATED IMAGES

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Image 1: Gelification process at 35°C

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