

## NEW « ONE STEP » POLYSACCHARIDES SYNTHESIS

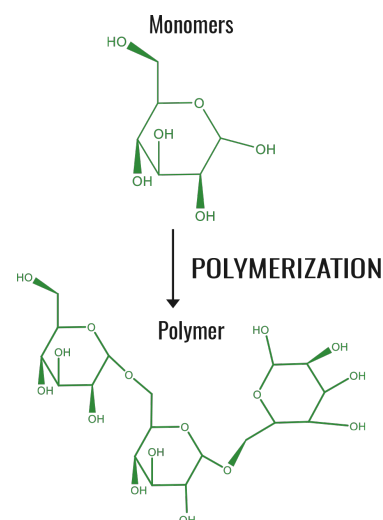
### > Technology

The invention is based on the use of a non thermal atmospheric plasma that will initiate the sugar polymerization.

The sugar, as a monomer, is treated in a specific plasma reactor for a time that could be inferior to 7 minutes.

After polymerization, the powder is ready for packaging without the need of a post-treatment for purification.

This process is part of a green chemistry approach since no homogeneous/heterogeneous catalysts are needed for the reaction (dry process).



### Context

Polysaccharides are used in several applications for their good surfactant, thickening and emulsifier properties.

They are produced by catalytic or enzymatic process that need several process steps (synthesis, filtering, retreatment...).

The new process developed by E4 team of the IC2MP laboratory (University of Poitiers) aspires to solve these problems by synthetize polysaccharides in one step within a dry process.

### Advantages

- One Step Dry Process
- No post-treatment
- Shorter reaction time
- Process cost limited
- ISO 14001 oriented

### Market targeted

- Surfactants
- Thickeners
- Industrial Adhesives
- Industrial Fluids
- Emulsifiers

#### #Keywords

Non thermal atmospheric plasma  
New polysaccharides  
Polymerization

#### Research Team

IC2MP Laboratory  
Catalysis & Non-Conventional Media  
Team University of Poitiers

#### Partnership

Licensing

#### Intellectual Property

Priority filing:  
FR : 07/30/2015  
PCT : 07/28/2016

**SATT** | TECHNOLOGY  
GRAND CENTRE | TRANSFER  
● ● ○ ● | COMPANY

#### Contact

Fabrice **VIGIER**  
Licensing Director  
Tél. +33(0)6 98 28 24 59  
fabrice.vigier@sattgc.com

#### SATT Grand Centre

CLERMONT-FERRAND | LA ROCHELLE | LIMOGES |  
ORLÉANS | POITIERS | TOURS

Head Office : 8, rue Pablo Picasso  
63000 CLERMONT-FERRAND - FRANCE

[www.sattgc.com](http://www.sattgc.com)