

**MASTER CHIMIE - M2**  
**STAGE 2017-2018 (29 janvier au 22 juin)**

Parcours au(x)quel(s) s'adresse le stage (cocher la/les cases concernées):

MA (Matériaux Avancés)  - COSV (Chimie Organique et Sciences du Vivant)

MMF (Molécules et Macromolécules Fonctionnelles)

PCCP (Physical Chemistry and Chemical Physics)

<b>TITRE</b>	<b>Design of Polysaccharide-Based Material for Potential Biomedical and Biopackaging Application</b>
<b>SUJET</b>	<p>The need of new active polymer materials for biomedical and bio-packaging fields is highly growing nowadays. However, due to environmental problems, traditional polymers made from fossil fuel are no longer a big interest and much attention turns into biodegradable polymers for their safe utilization, biodegradability, and potential antimicrobial characters.</p> <p>Chitosan, a chitin derivative, is one of the biopolymers of interest. It consists in a copolymer of <math>\beta</math>-(1-4)-D-glucosamine and acetyl-<math>\beta</math>-(1,4)-D-glucosamine. Unfortunately, despite its well antimicrobial properties, its low barrier and mechanical properties limit its application in wound dressing or biopackaging. In order to enhance those properties, first, chitosan-based biocomposites will be elaborated from nano-fillers or precipitated calcium carbonates (PCC) and then fully characterized. Second, an association with another polyelectrolyte-based materials such as carboxymethyl cellulose, will also be investigated.</p>
<b>TECHNIQUES UTILISEES</b>	FTIR, UV-visible, NMR, Thermal properties, Microscopy, macroscopic properties of materials (mechanical and barrier properties, swelling, and so on)
<b>LABORATOIRE D'ACCUEIL</b>	LCPO
<b>Equipe d'accueil</b>	Biopolymères et polymères biosourcés
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<p style="text-align: center;"><b>Possibilité de poursuite du stage jusqu'à fin août: OUI <input type="checkbox"/> / NON <input checked="" type="checkbox"/></b></p> <p style="text-align: center;"><b>Possibilité de proposer le stage à un M1 si non attribué à un M2: OUI <input type="checkbox"/> / NON <input checked="" type="checkbox"/></b></p>	