



Post doc position on design of β -cyclodextrin polymers for scavenging of chemical warfare agents at COBRA and PBS laboratories

The COBRA and PBS laboratories in Rouen, France, offer a 12 months' position to develop new efficient protective and medical equipments (mask, dialysis membrane) containing derivatives of cyclodextrin for organophosphorus molecules scavenging.

Organophosphorus (OP) agents are main constituents of pesticides and chemical warfare agents and they are well-known to constitute a real threaten for the populations. A promising way to neutralize OP is the introduction of active group against OP on β -cyclodextrins (CDs). These functionalized CDs already show an efficient hydrolysis against several OP agents. Here, we are interested in the synthesis of activated CDs against OP agents, in the subsequent modification of polymer matrix and membranes in order to incorporate these functionalized CDs, and finally in the design of protective equipment (mask) and membranes for blood clearance. This project regroups two teams from COBRA laboratory (François Estour) and PBS laboratory (Laurent Lebrun and Louise Hespel).

We are seeking a candidate holding a PhD in the field of organic chemistry with skills in modification of cyclodextrin. Being familiar with chemical modification of polymers will be an add. The candidate is expected to contribute to the synthesis of derivatives of β -cyclodextrin able to neutralize organophosphorous molecules and to the chemical modification of polymer matrix through different pathways.

Submit your detailed CV (with references) to Laurent Lebrun (laurent.lebrun@univ-rouen.fr) and François Estour (françois.estour@univ-rouen.fr). The position is available from now. The review of application will continue until the position has been filled.