

## **Abstract**

Materials prepared within this rigorous thesis include simple experiments with proteins and some hands-on activities with protein folding using toobers (protein models). Their originality and strong activation potential consist in creating a protein structure by students own hands. Students have to apply knowledge, how main intermolecular interactions work. Materials were also prepared to respect the contemporary tendencies in science education, they contain the main principles of Inquiry Based Science Education. Their efectivity for acquiring protein structure curriculum was tested in several secondary schools.