

## Experiment 8: Clarification of fruit juices

*Duration:* 20 minutes.

*Equipment:* Beaker (100 ml), magnetic stirrer, stirring rod, centrifuge, centrifuge tubes, Pasteur pipette, light source (e.g. laser).

*Reagents and materials:* Chitosan, naturally cloudy juice (e.g. apple juice). Procedure: 50 ml of naturally cloudy apple juice are mixed with 0.1 g of chitosan and the mixture is stirred for 5 minutes. Then the solution is centrifuged for 10 minutes. Equally, 50 ml of naturally cloudy apple juice without additional chitosan are centrifuged as blank test.

*Observation:* The centrifugate of the apple juice mixed with chitosan is completely clear and no Tyndall effect is visible. In opposite, the centrifugate of the untreated apple juice shows same cloudiness as before. The Tyndall effect is visible.

*Faults and precautions:* If too much chitosan is added, the centrifugate remains cloudy. Waste disposal: The solutions are poured down the sink.

