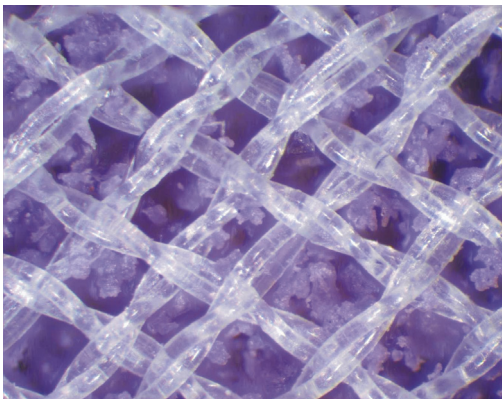

Microfiltration modelling nature

In nature adaptive filtration takes on vital tasks. The ingestion of food with soft shells, for example, requires perfect microfiltration. The transfer of this active principle allows energy-saving microfiltration connected with high adaption capability.



Ingestion of food as well as respiration happens with sponges by sucking water with particles included through fine, changeable pores on the surface of the sponge, by filtering the water, and by emitting the water via large collecting canals. As for this kind of filtration, nature works extremely energy-efficient: at low pressures large quantities of water per second are moved – quantities which can amount up to the half of the body's volume.



Based on this model, a changeable, i.e. adaptable cross-flow microfiltration system was developed. For this purpose, a specially braided hose filter with changeable pore sizes was produced. This system is applied in different branches of industry thanks to the variable separation boundary, high filter performance and excellent cleaning behaviour.

R&D-Partner

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