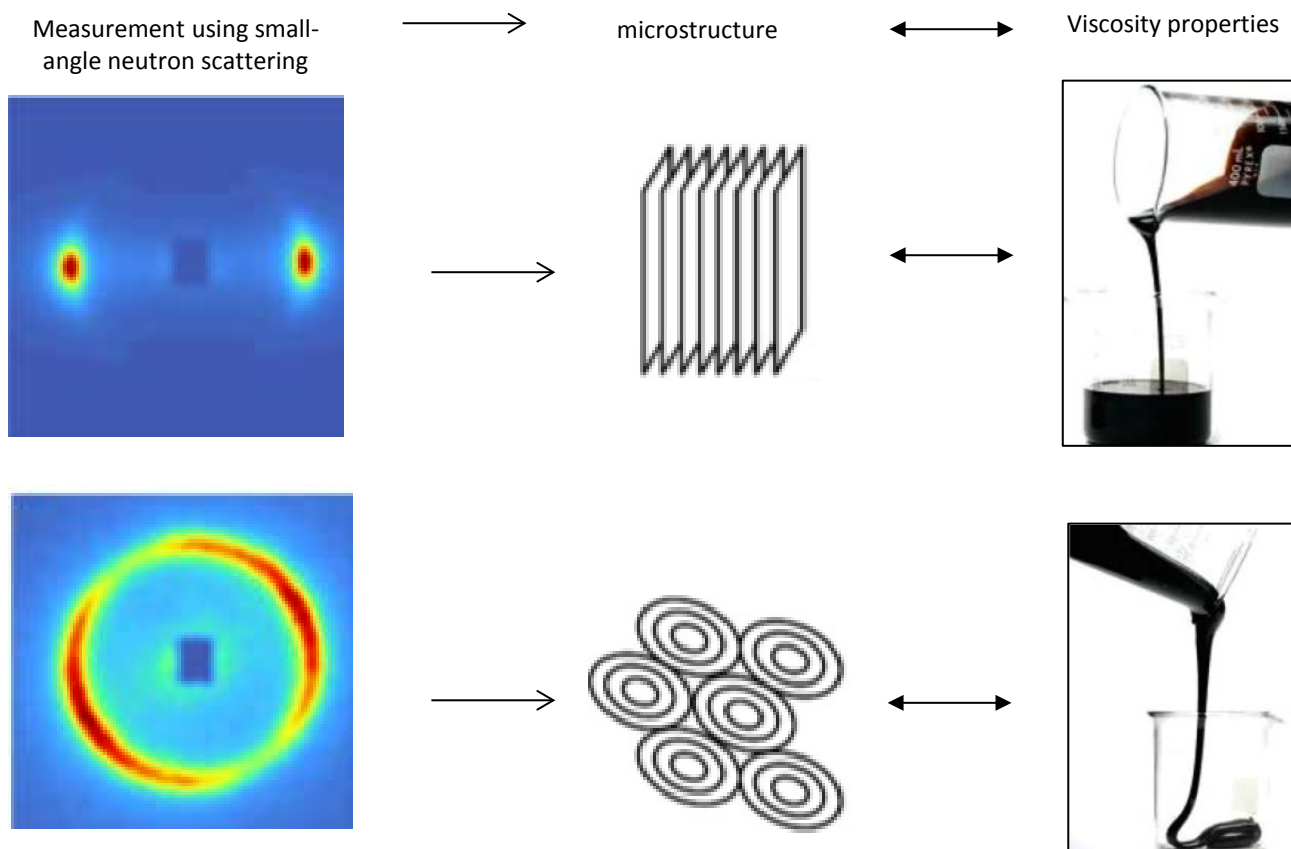


Investigating viscosity to improve product functionality and industrial processing

Surfactants are one of the main ingredients in detergents, shower gels, shampoos and body care products. Their molecules line up and self-assemble in twin-layer stacks. This structure may change radically when the product is poured or pumped through a pipe or tube, resulting in changes to its viscosity. These transitions need to be understood for industrial processing and the design of product functionality.

Small-angle neutron scattering measurements can provide insight into the microstructure of liquids and gels under evolving conditions – of shear or temperature, for example.



➔ With this type of structural measurement we can better **understand or predict shear stress properties measured macroscopically**. This will inform, for instance, the selection of additives required to produce the necessary product functionalities.

[Ref. Gentile et al. 2014, Langmuir, 30, (2014), Annual Report 2014 ILL]