# Highly tunable Pickering emulsion/polymer systems: from colloids to functional surfaces

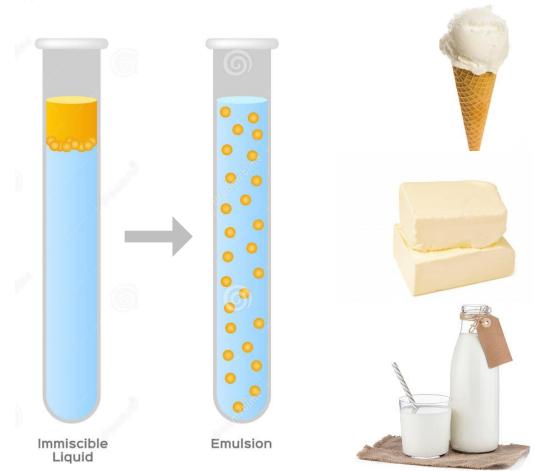
### **Mechrez Lab**

Department of Food Science Institute of Postharvest and Food Science Volcani Institute, ARO, Israel

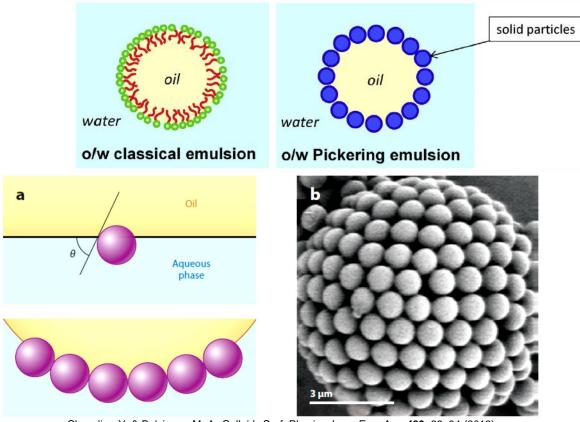




## Pickering emulsions



An **emulsion** is a stable dispersion of two or more immiscible liquids held in suspension by small percentages of substances called **emulsifiers**. From: Handbook of Adhesives and Surface Preparation, 2011

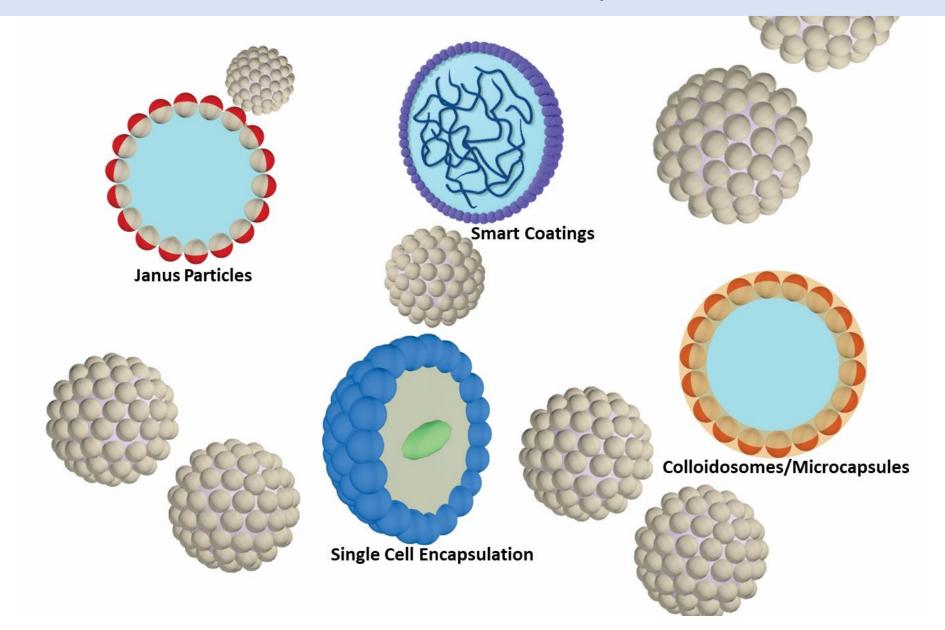


Chevalier, Y. & Bolzinger, M.-A. *Colloids Surf. Physicochem. Eng. Asp.* **439**, 23–34 (2013). Berton-Carabin, C. C. & Schroën, K. *Annu. Rev. Food Sci. Technol.* **6**, 263–297 (2015). Aveyard R., Binks B.P., Clint J.H. *Adv. Colloid Interface Sci.* **100–102**, 503–546 (2003).

**Pickering emulsions** are emulsions that stabilized by colloidal particles that self-assemble at the interface and stabilize the emulsion



## Research concept

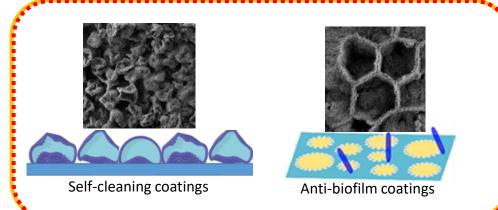




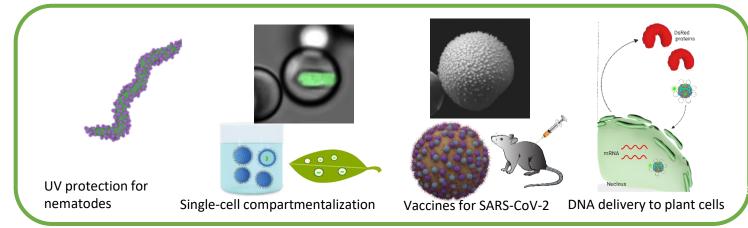
## Research concept



### **Superhydrophobic coatings**



## **Eco-friendly and bio-functional soft materials**



### **Nanocomposite materials**

