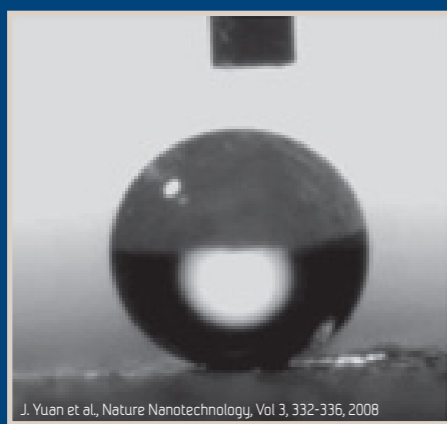
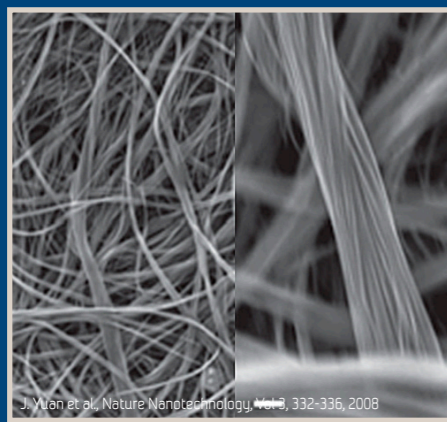
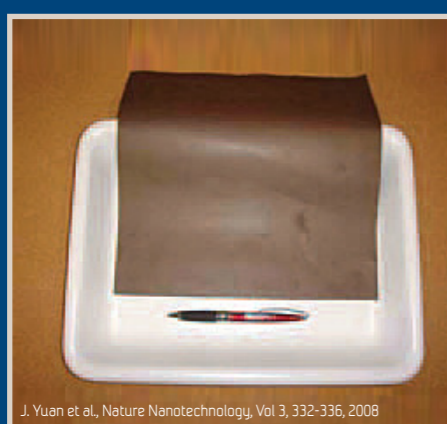


Oil-water separation by adsorbents and membranes

Ambient temperature processes for purifying water and capturing the oil. Systems can be developed for installation on boats and collect oil from oil-in-water dispersions.

■ Adsorbents

- Adsorbent mats
- Super-oleophilic nanoporous material based on coated ceramic nanowires
- Possible oil regeneration
- Can absorb 20 times its own weight in motor oil
- Can be recycled several times

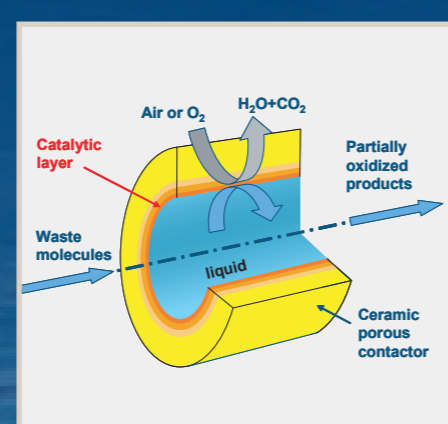
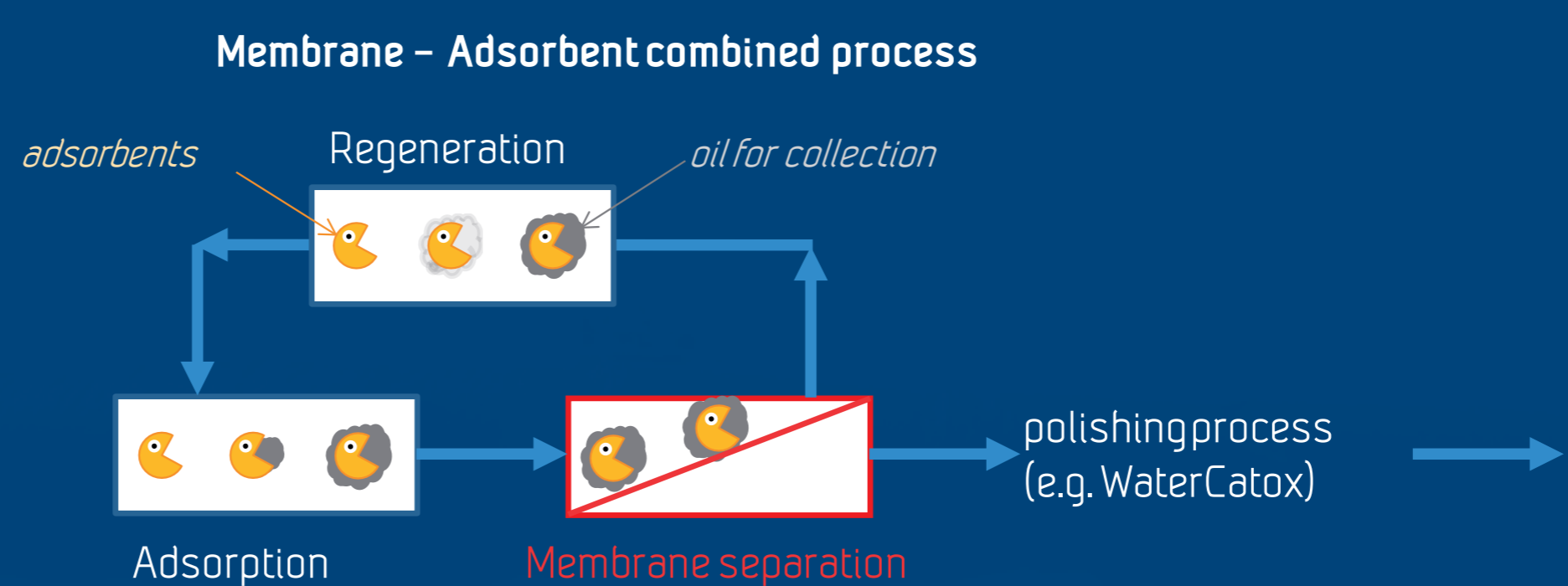
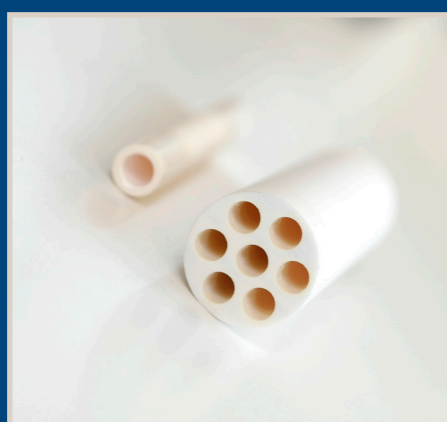


■ Membranes

- Hydrophilic membrane
- Controlled pore size
- Polishing step: Watercatox[®] catalytic membrane

■ Adsorbents + Membranes

- Efficient adsorbent separation
- Possibility for adsorbent regeneration
- Continuous operation
- Similar to FracSep[®] technology for oil purification



Contact:

Senior Business Developer, Henrik Ræder
henrik.raeder@sintef.no

Research Manager, Partow Pakdel Henriksen
partow.henriksen@sintef.no

Senior Scientist, Monika Pilz
monika.pilz@sintef.no

SINTEF Materials and Chemistry