

## Nylon Polymerisation

### Background and Objectives

Study dynamic behaviour during nylon polymerisation.

Aggressive environment:

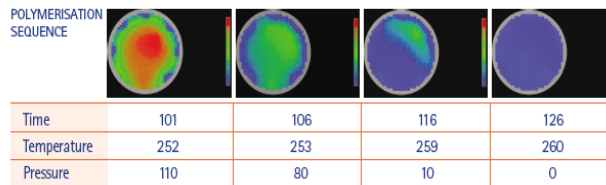
- 250°C
- 20 bar pressure
- Reactive chemicals
- Control product quality.
- Improve energy efficiency by reducing the time for polymerisation.
- Image a multi-phase flow with physical and chemical process varying in time



Autoclave converter

### Results

- Resistance and capacitance measurements were taken.
- The sequence below shows capacitance images near the end of the polymerisation process where pressure is reduced whilst temperature is maintained at approx 250°C.
- Change from "red" to "blue" indicative of reducing water content.
- Process complete after 2 hours.



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