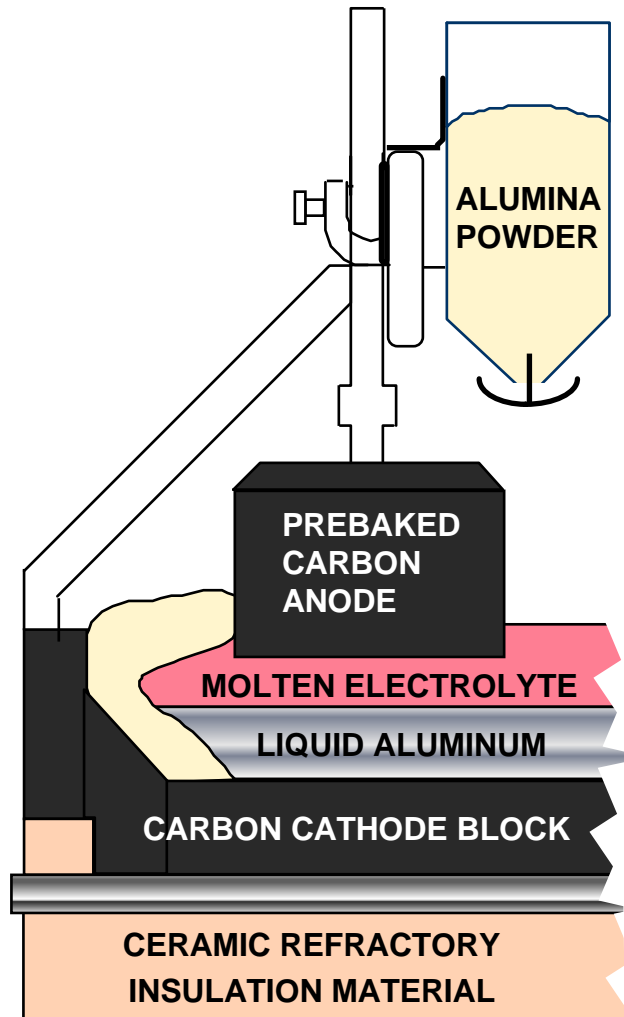


Material Science in the Aluminium Electrolysis Cell



- Aim:
 - Increased productivity
- Objectives:
 - Develop an understanding the chemical and mechanical deterioration mechanisms for the carbon cathode and the refractory lining
 - Introduce improved or new materials with better overall performance
- Results:
 - A better understanding of wear mechanisms
 - Improved materials and cell design, promoting longer cell life
 - 1987 < 1000 days
 - 2003 > 2000 days
 - Increased productivity (increased current) through better selection of materials
 - Improved thermal balance in the cell