

**#23**

**A COMPARISON OF CLEANING OF THE WPC GEL AND REAL FOULING DEPOSITED ON A STAINLESS STEEL SURFACE**

Lin Lin, Hong Xing & Xiao Dong Chen\*

*Department of Chemical and Material Engineering, University of Auckland, Private Bag 92019, Auckland, New Zealand*

**ABSTRACT**

Fouling of heat transfer causes serious problems in the dairy industry. In milk processing, some milk components can form deposit on stainless steel surfaces. In this study, comparison of the behaviours of the WPC gel and real fouling when subjected to NaOH solutions have been carried out, using an appropriate experimental set-up at the University of Auckland. Special attention has been paid to the bulk temperatures of 85 °C, 65 °C and 45 °C, the flow velocities of 0.658 m.s<sup>-1</sup>, 0.219 m.s<sup>-1</sup> and 0.15 m.s<sup>-1</sup>. Both the gel removal and fouling deposit removal have been monitored using a UV spec and the results are described in this paper.