

APPENDIX I

Calculation of the steady state operation points

To determine the steady state operating points plant data for every measured variable in the model are plotted using MathCAD. The range where all variables have small fluctuations around a mean value is considered a steady state operation range. Average values of the data points in this range are steady state operating points of the alkylation process.

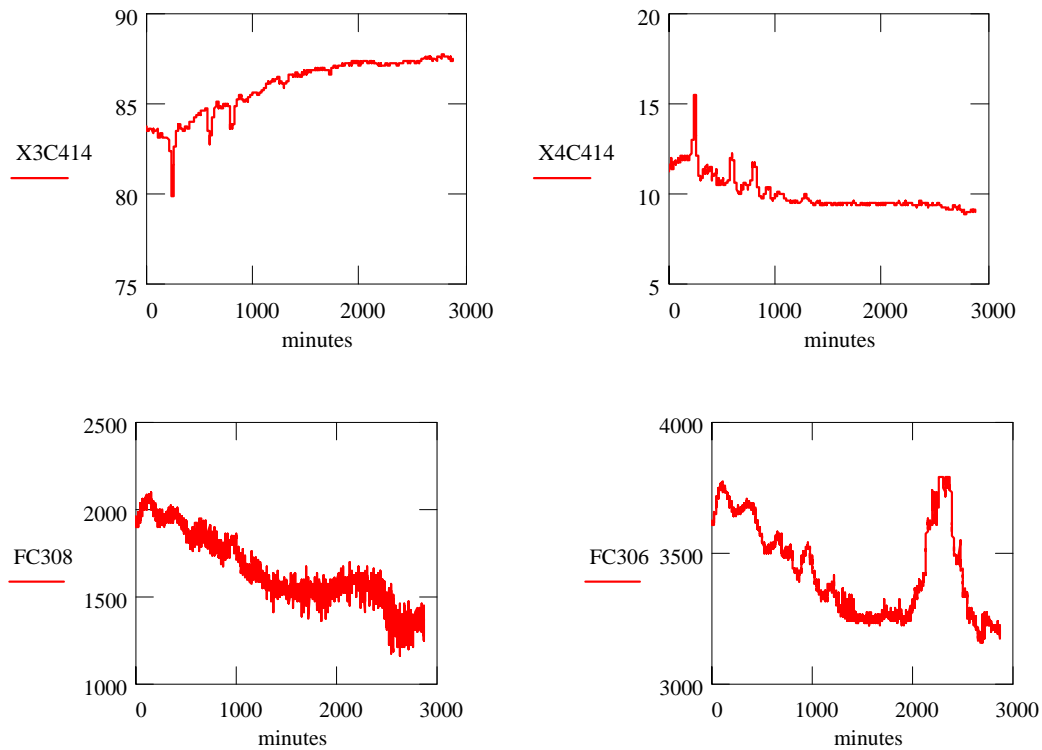


Figure I.1. Plant data for four variables between 12/6/1998 and 12/7/1998 as plotted with MathCAD. The steady state operation range is 1000-2200 min.

Table I.1. Steady state operation points used for Alkylation process

Point	Date	Steady State Operation Range
#1	11/8-9/1998	0-200 min
#2	11/8-9/1998	1700-2000 min
#3	12/27-28/1998	1000-2000 min
#4	12/13-14/1998	1000-2000 min
#5	11/22-23/1998	800-1800 min
#6	12/6-7/1998	1000-2200 min