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APPENDIX

Influence of Temperature on Heat Capacity of Ammonia in Operating Condition

The result data from GAMS was achieved from assuming the constant heat capacity of ammonia. Inlet and outlet temperature need to be validated due to heat capacity changes in Aspen Plus commercial software. The result showed there is less relative error between conceptual design from GAMS and validated process from commercial software Aspen Plus as a result of ammonia heat capacity slightly changes in operating temperature as shown in this Figure A1.

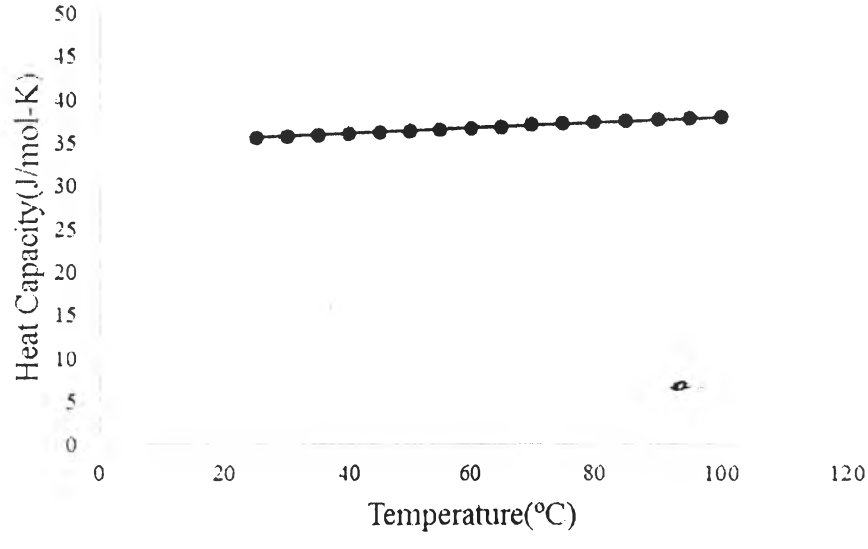

Figure A1 Ammonia heat capacity at operating condition (Elliott and Lira, 2012)

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