

Basetwo: Optimizing Chemical Reactors with AI



Engineers want to improve the efficiency of their reactors but often lack real-time visibility into process changes, making optimization challenging. Using the Basetwo platform, engineers can leverage digital twins to :



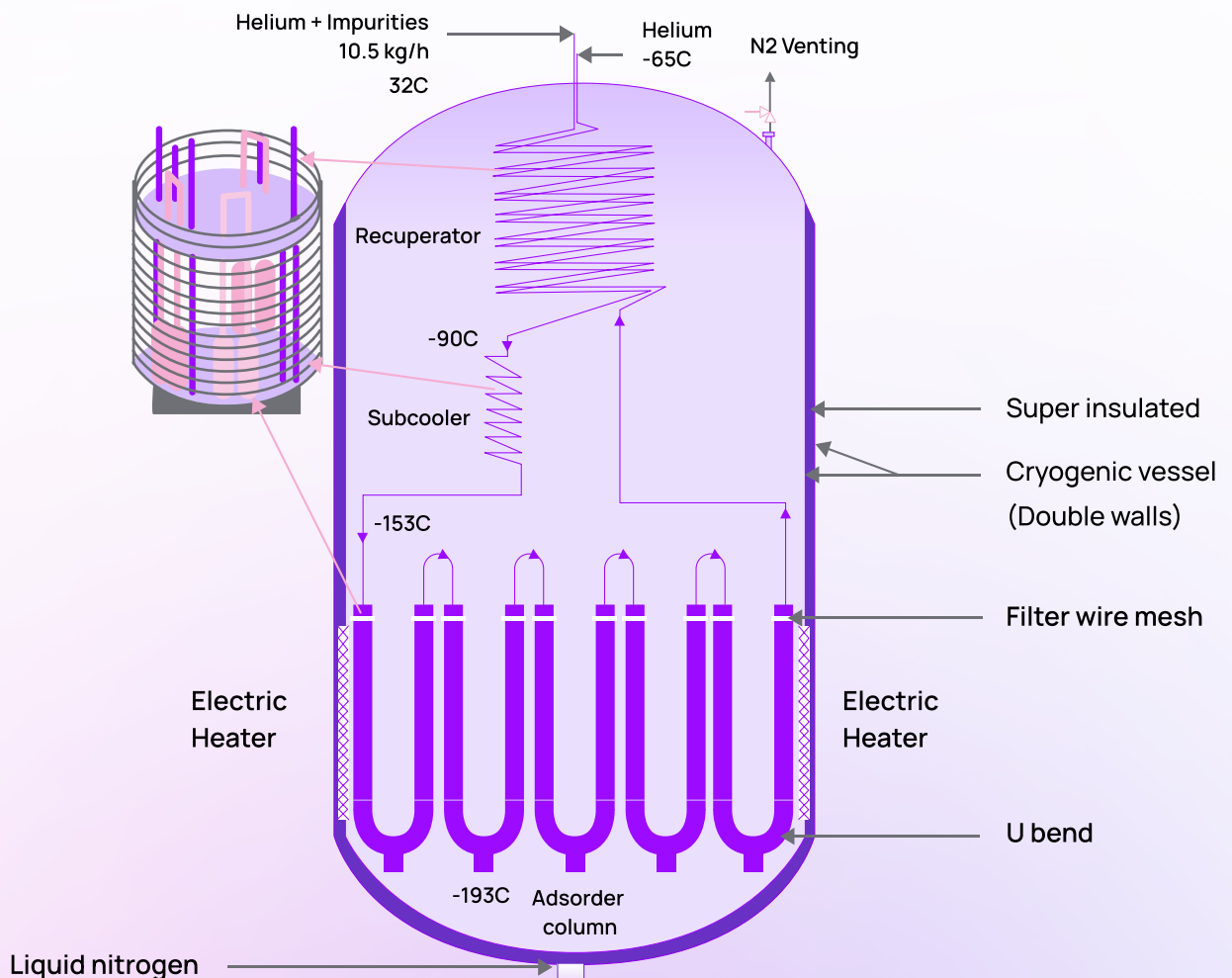
Maximize product yield while adhering to process constraints



Accelerate scale-up and achieve right first time manufacturing



Optimize energy usage and production costs

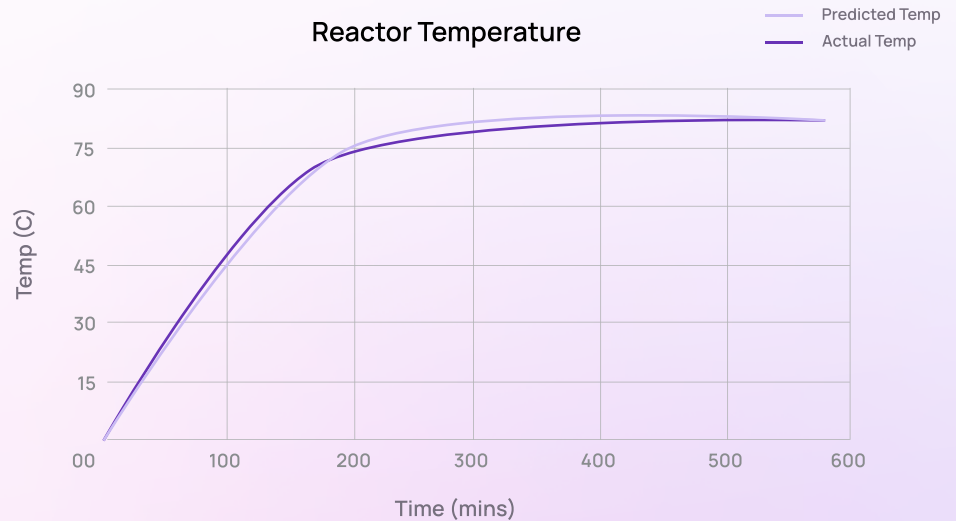


Basetwo Solution

Extract 1-2 years of historical data

Examples of data inputs: Reactor inputs (Flow, T, P), Reaction Kinetics, Heat Transfer Relationships, Reactor Controls

Visualize your data on the Basetwo platform



Build a model informed by your data

Virtually simulate your processes and perform what-if analyses without affecting your actual processes or consuming resources.

Use Reinforcement learning/optimization algorithms

Develop and test optimal control strategies for your existing processes, allowing you to determine the most efficient setpoints depending on reaction kinetics and desired product characteristics.

The Impact

1



Automatically determine **optimal control setpoints** across the entire batch.

2



Identify the best way to scale-up your processes and **minimize experimentation**.

3



Achieve cost savings and scale-up time reductions of **>30%**.

Want to explore how Basetwo can help reduce costs and increase efficiency for your team?

Reach out today!

✉ contact@basetwo.ai

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