

Basetwo: AI-enabled Chromatography Process Optimization



Basetwo's AI copilot supports pharmaceutical manufacturers in tackling the following challenges in their chromatography processes:



Process Development:

Leverage advanced modeling to predict optimal separation conditions, minimizing trial-and-error lab experiments. With Basetwo, engineers can optimize resin selection or process characteristics like flow rate and elution peak cutoffs, achieving lower costs, higher yield and product quality results.



Scale Up and Tech Transfer:

Achieving consistent separation performance when scaling up chromatography from small lab columns to large production columns is challenging. With Basetwo, manufacturers can simulate the separation performance from benchtop or HTPD columns to larger scale AKTA systems, without compromising on yield or quality.



Process Monitoring and Control:

The lack of real-time quality monitoring during the chromatography process makes it difficult to know when batches aren't meeting quality standards. Using Basetwo, manufacturers can leverage real-time simulation of critical quality attributes and separation performance.

Basetwo Use Case: Chromatography Process Optimization with AI

Manufacturing teams can use Basetwo's AI copilot to virtually experiment with various loading characteristics, quickly achieving the desired quality attributes during the first scale-up.

1 Integration of internal specifications and data into Basetwo



Upstream Quality

Product titers, HCP, stability, contaminante profile, etc.

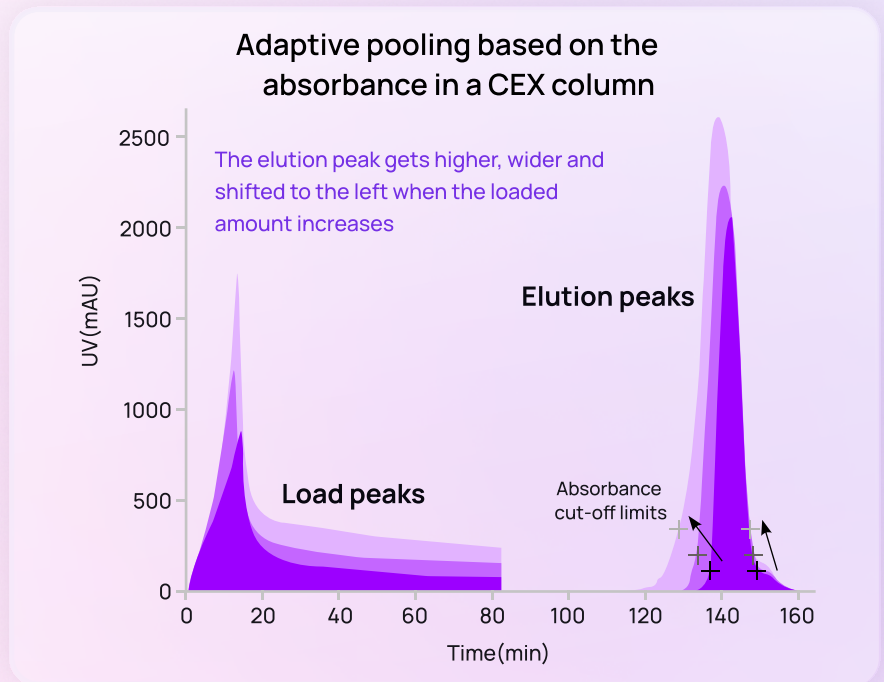


Loading Properties

Sample solubility, volume concentrate, flow rate, etc.

2 Simulation of a physical process within a virtual environment

Allows manufacturers to digitally experiment and perform "what-if" analyses for chromatography loading.



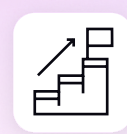
3 Basetwo runs rapid optimization to allow teams to:



Increase resin utilization while keeping yield constant



Understand the influence of process parameters like loading rates on elution peaks



Achieve right first-time scale up

Explore how Basetwo can help reduce costs and increase efficiency for your team.

Reach out today!

✉ contact@basetwo.ai