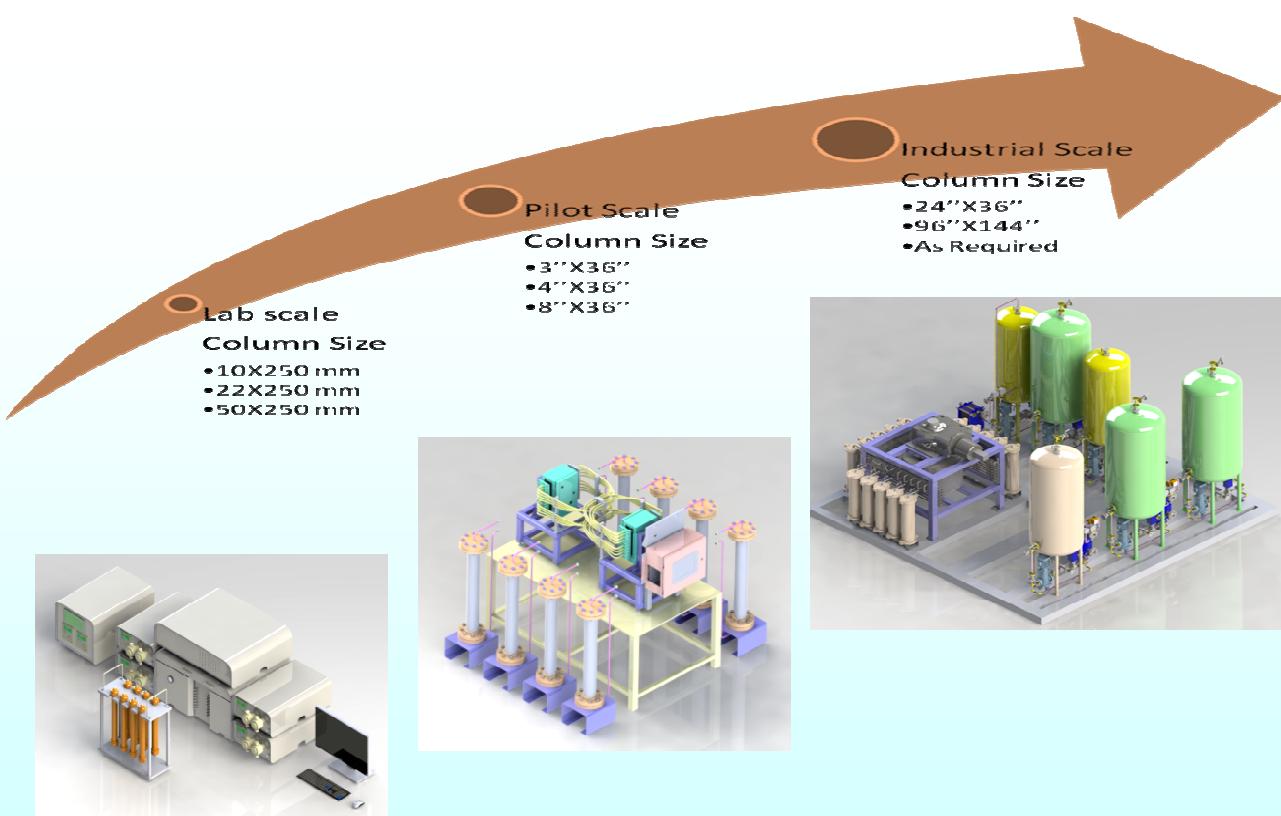
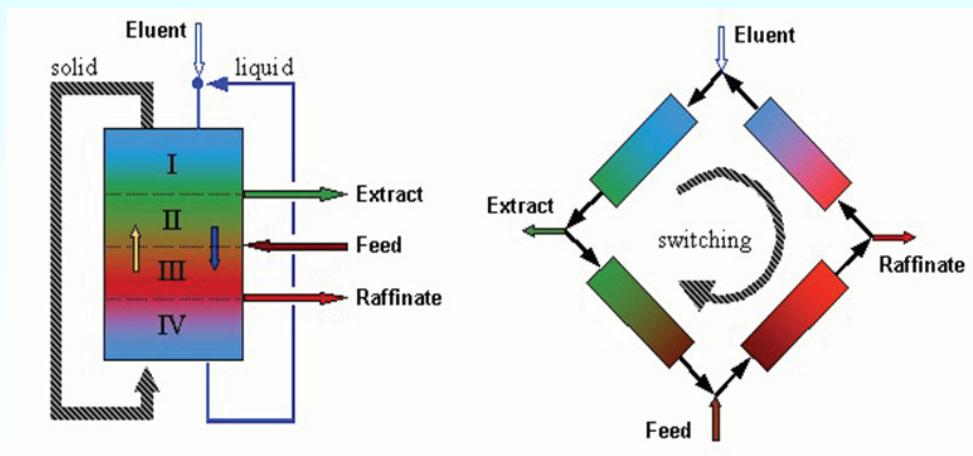


SIMULATED MOVING BED (SMB) CHROMATOGRAPHY SYSTEMS PILOT SCALE TO INDUSTRIAL SCALE



DISCOVERY TO COMMERCIALIZATION : SMB SYSTEMS

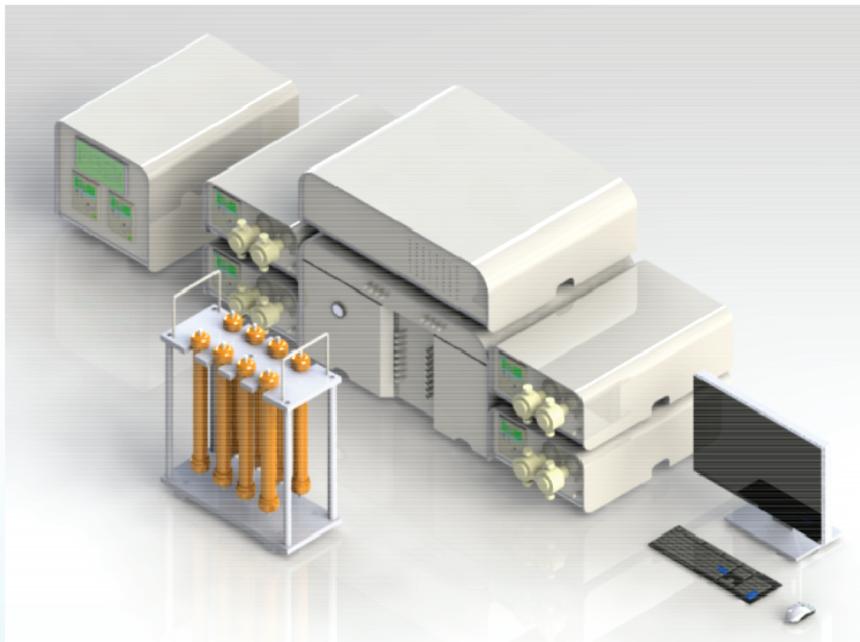


SIMULATED MOVING BED (SMB) CHROMATOGRAPHY SYSTEMS PILOT SCALE TO INDUSTRIAL SCALE

An Ideal Module for Process Optimization

BENEFITS

- Proof of Concept
- Demonstration of Purity
- Optimization of Separation Parameters
- Validation of Products prior to Pilot scale
- Economic evaluation



LAB SCALE SMB

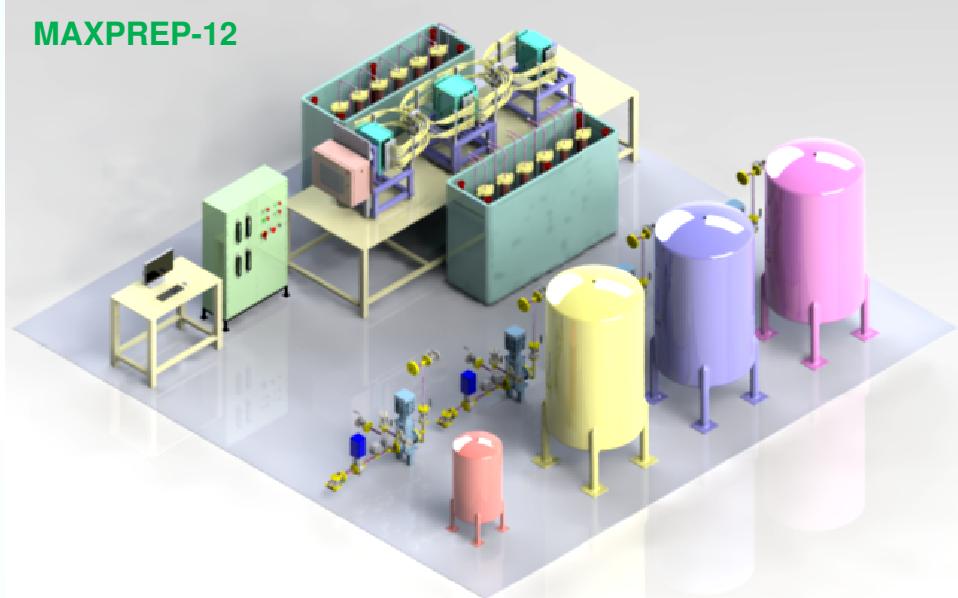
FEATURES

- 8 Column system
- Flow Rates: 10 — 300 milliliter/minute.
- Maximum Pressure : 300 pounds per square inch
- Column Diameter : 10 — 30 millimeter
- Column Length : 100 — 300 millimeter

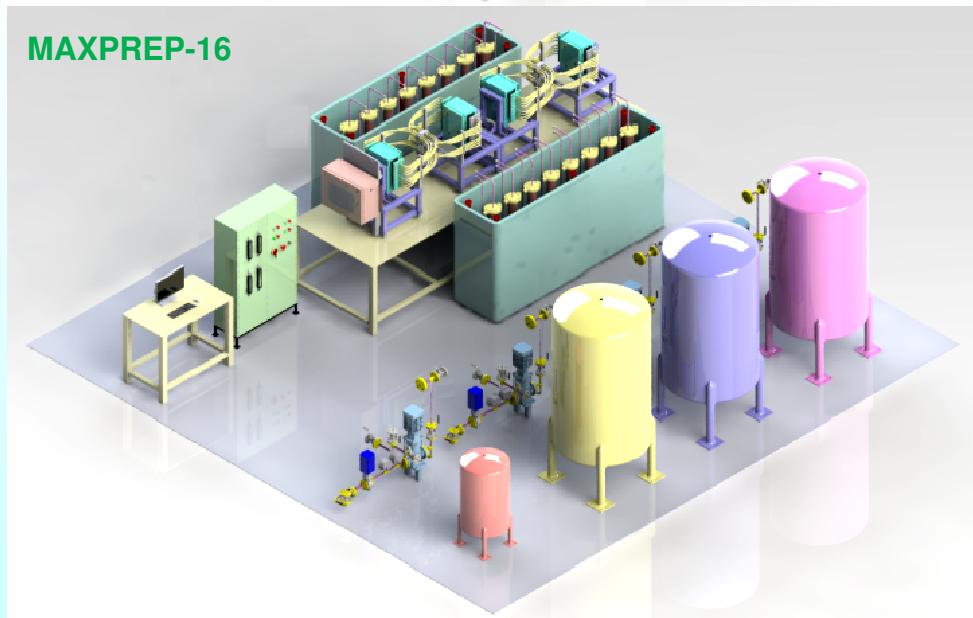
SIMULATED MOVING BED (SMB) CHROMATOGRAPHY SYSTEMS PILOT SCALE TO INDUSTRIAL SCALE

- Sugar/Salt Separation
- Sugar/Chiral Isomer Separation
- Fatty Acids Separation
- Organic Acid/Alcohols from Fermentation products
- Natural Products Separation

MAXPREP-12



MAXPREP-16



SIMULATED MOVING BED (SMB) CHROMATOGRAPHY SYSTEMS PILOT SCALE TO INDUSTRIAL SCALE

Panorama of Molecules Purified with SMB Process by OROCHEM

