

Grow with Galexia™ hydroprocessing platform

A platform of catalysts and service solutions

The unique Galexia™ hydroprocessing platform combines state-of-the-art catalysts and service expertise to optimize your operation and identify high-value opportunities for step-out growth and profitability.

The Galexia hydroprocessing platform

The operation within the platform is designed based on a thorough evaluation and understanding of the unit. Offering a holistic, tailor-made solution, the Galexia platform can generate significant profitability within and even beyond the unit, unlocking hidden potential for flexibility and margin improvement.

The suite of high-performance catalysts for refill of existing hydrotreaters is led by groundbreaking Celestia™ bulk-metal catalyst that provides ultra-high activity. Both Nebula® and MIDW™ catalysts can be used either alone or in conjunction with Celestia to provide step-out value.

Industry leaders ExxonMobil and Albemarle provide unsurpassed expertise in catalyst development and application, guiding operators from pilot testing and start-up through monitoring, troubleshooting and shutdown.

The Galexia platform offers access to combined pretreat and dewaxing solutions through a single partner that provides both refinery owner/operator and catalyst experience.



Holistic solution for unlocking refinery value beyond battery limit



Increased margins and short payback period



Expert guidance to help extract full value

Key benefits



Exceptional performance

- Combination of specialty catalysts to meet refinery targets
- Proven commercial success



Improved profitability

- Value beyond the battery limit
- Short pay-back period
- Increased margins

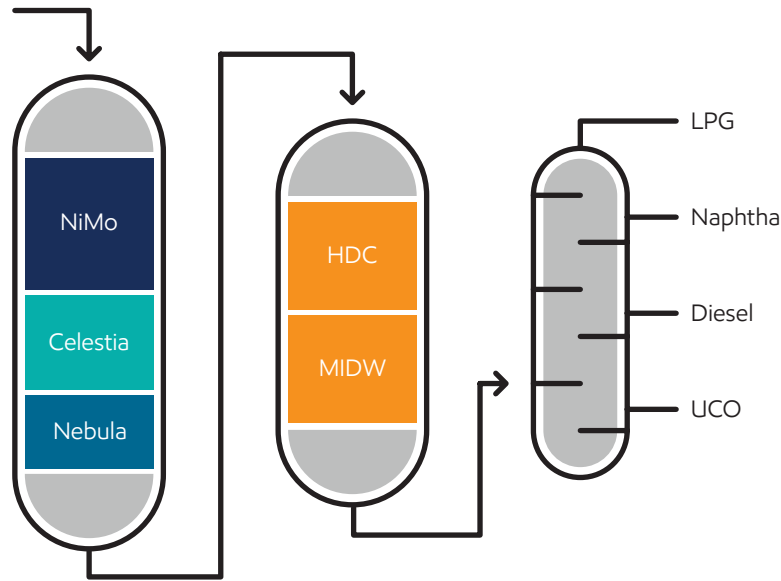


Galexia services

- Optimization of reactor configurations and catalysts loads
- Guidance from pilot plant testing and on-site start-up through monitoring, troubleshooting and shutdown

Hydroprocessing value

Co-developed by Albemarle and ExxonMobil, Celestia™ catalyst technology has delivered exceptional results at ExxonMobil refineries around the world since 2015. Partial loads of Celestia™ with Nebula®, its predecessor, and other leading supported catalysts (including ExxonMobil MIDW™ catalyst) have delivered step-change benefits in hydrotreating activity and processing capability. Expert and committed service allow operators to extract the full value from the catalytic process and STAX® refinery optimization.



Discover opportunities for step-out growth and profitability.

Collaborate with us today.

albemarle.com/Galexia

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*Projected in commercial unit, proven in pilot plant

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Success story

Celestia™ catalyst was loaded into a high-pressure hydrocracker processing vacuum gasoil, light cycle oil and heavy coker gasoil.

The pretreat catalyst design was optimized by loading Nebula, Celestia and NiMo hydrotreating catalysts. The hydrocracker also successfully incorporates MIDW isomerization technology in a downstream hydrocracking reactor.

Process objectives:

- Increase cycle length to align turnarounds
- Increase HDC yields at equal cold-flow properties

Optimized loadings:

- 40% Celestia and Nebula catalysts in pretreat reactor
- 15% MIDW catalyst in the hydrocracking reactor

Resulted in:



Projected 30% cycle length improvement



5 wt% diesel yield improvement*



10:1 return on catalyst change

About us

ExxonMobil and Albemarle have been co-developing bulk-metal hydrotreating catalysts for more than 15 years. The complementary strengths create best value for the customer and deliver proven and reliable solutions for refiners worldwide.