

Refinery Catalyst Market Shares, Strategies, and Forecasts, Worldwide, 2012 to 2018

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Abstracts

WinterGreen Research announces that it has published a new study on refinery catalysts. The 2012 study has 683 pages, 188 tables and figures. Worldwide markets are poised to achieve steady growth as countries impose stricter environment controls on the manufacture and use of fossil fuels.

Hydroprocessing catalysts are used to create cleaner fuels--especially ULSD. Demand for cleaner fuels is driving the market. Refining catalysts are experiencing strong growth this year. New fuel standards are coupled with refinery increasing use of heavier and dirtier feedstocks and major additions to refining capacity. Refining catalysts are moving to a more balanced market. Producers of fluid catalytic cracking (FCC) catalysts had a surge in demand. The market is shifting from one characterized by oversupply to a more stable sales effort. Hydroprocessing catalyst supply-demand is evolving.

Hydroprocessing catalysts are the fastest-growing refinery catalysts. These catalysts help control and improve the operational efficiencies in the petroleum refining process. Demand is lower for the more mature FCC catalysts than the hydroprocessing catalysts. Hydroprocessing catalysts have passed FCC catalysts, becoming the largest segment of the refinery catalyst market.

Low sulfur regulations in developed countries, implementation of some sulfur restrictions in China, India and Mexico, and other countries is a significant market driving force. Increasingly higher sulfur-content is present in oil coming out of the ground.

The rapidly increasing demand for gasoline and diesel has increased the requirement for raw materials for their production. The limited supply of raw materials increases the

overall cost of production.

Reforming catalysts are fundamental to the modernization of product reformate. They contain hydrocarbons with more complex molecular shapes having higher octane values than the hydrocarbons in the naphtha feedstock. The process separates hydrogen atoms from the hydrocarbon molecules and produces significant amounts of byproduct hydrogen gas.

Hydrogen is useful for fuel cells, meaning that refineries could become environments for generating electricity. Hydrogen is useful in stationary fuel cells that are evolving a market for providing local power in campus environments. Local power generation is becoming more valued as people realize that the cost of conditioning electricity for the grid is an unnecessary expense in local power environments.

Stationary fuel cells represent the base for distributed power generation worldwide. No more new coal plants, no more extensions to the grid. Distributed power has become mainstream. Distributed generation (DG) refers to power generation at the point of consumption. The use of hydrogen and the manufacture of hydrogen in refinery environments could become significant aspect of markets.

According to Susan Eustis, the lead author of the study, 'These factors have attracted manufacturers to refinery catalysts, as these help extract relatively more diesel and gasoline from the same amount of crude oil. The refinery catalyst market is thus boosted by the fact that the efficient use of catalysts can help the manufacturers' better address the increasing energy demand. Hydroprocessing faces significant challenges as crude feeds get heavier; there will be more sulphur and nitrogen to extract; more aromatics to saturate; more metals to remove; and more coke to deal with. Refiners have ageing facilities, which may not be designed and optimized to meet new challenges.'

Generating power on-site, rather than centrally, eliminates the cost, complexity, interdependencies, and inefficiencies associated with transmission and distribution. Like distributed computing (i.e. the PC) and distributed telephony (i.e. the mobile phone), distributed power generation shifts control to the consumer.

As more capital investment is needed, costs for refining fossil fuels will rise, stimulating markets for renewable energy, making them more competitive with fossil fuels.

Refinery catalyst markets at \$3.3 billion in 2011 are anticipated to reach \$4.3 billion in

2018. Market growth comes in large part from demand for cleaner diesel fuel and the availability of newer technology and nanotechnology.

Hydrotreating catalysts will continue to achieve the best growth in the petroleum refining market, aided by the increasingly sour nature of the crude petroleum supplied to the market. Efforts by Brazil, China, India and Russia to improve their air quality by the introduction of low-sulfur fuels are ongoing. Hydrocracking and fluid catalytic cracking (FCC) catalysts achieve advances, particularly in Asia as the growing motor vehicle fleet stimulates new gasoline and diesel fuel demand.

WinterGreen Research is an independent research organization funded by the sale of market research studies all over the world and by the implementation of ROI models that are used to calculate the total cost of ownership of equipment, services, and software. The company has 35 distributors worldwide, including Global Information Info Shop, Market Research.com, Research and Markets, Bloomberg, and Thompson Financial.

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