

Toward tapping the potential of 'stranded' natural gas

Newly discovered chemical catalysts may be an answer to the century-long search for economical ways of using natural gas now burned or "flared" as waste in huge quantities, scientists in the United States and Germany report. Their study is scheduled for the March 7 issue of the *Journal of the American Chemical Society*.

Johannes A. Lercher and colleagues at the Technical University of Munich and Dow Chemical Company explain that 30 percent to 60 percent of the world's natural gas is classified as "stranded," meaning that it cannot be used locally or transported economically to other markets. When produced in the course of pumping crude oil, such gas is vented to the atmosphere or burned at the wellhead.

That wasted natural gas is mainly methane, a compound in great demand as a chemical feedstock, a basic raw material for making chemicals that are subsequently used to make hundreds of medical, commercial and industrial products. No practical technology has been available, however, for using the methane in natural gas as a chemical feedstock. The new study describes research on lanthanum-based catalysts that convert methane into a compound that would be an ideal chemical feedstock.

Source: ACS

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