

عنوان مقاله:

Economic Opportunity and Challenge in Gas Hydrate

محل انتشار:

ششمین همایش ملی دانشجویی مهندسی شیمی و پنجمین همایش ملی دانشجویی مهندسی نفت (سال: 1385)

تعداد صفحات اصل مقاله: 12

نویسندگان:

احسان دوانی - Sahand University of technology

محمد مهدی خواجه - Sahand University of technology

Dr. Seyyed Alireza Tabatabeinezhad - Professor of chemical department of Sahand University of technology

احسان کاشانی نیا - Petroleum University of technology

خلاصه مقاله:

Gas hydrate is the solid like (crystalline) phase of a mixture of water and gases such as nitrogen, hydrogen sulfide, carbon dioxide or various hydrocarbons, especially methane. This gas bearing "ice" is stable only in proper thermodynamic condition like at high pressure and low temperature, for example for methane hydrate, a pressure 20 atmospheres at the freezing point of water is required. For this reason, more than they can naturally occur in the deep layers of permafrost soils and mainly in the pore spaces of ocean bottom sediments. Generally ethane hydrate constitutes over of all hydrates. In the petroleum industry suffers from the nuisance of hydrocarbon-hydrates blocking gas pipelines in arctic regions, and this results high cost and time, hence research are being done to providing ways to prevent or remove this problem. Rapid methane hydrate decomposition can be triggered e.g. by earthquakes may lead to catastrophic submarine landslides producing tsunamis of a giant size. Moreover, the . Yet this is not decomposition of methane hydrate may well affect the world's climate the only area of interest in the field of gas hydrates: They may be used as a cheaper source of energy and an alternative for gas storage and transport as compared to liquefied gas, also gas hydrates may be used in the desalination of sea water and in many wide industrial applications like distillation, concentration, etc. In this paper the application of gas hydrate in many fields, industrial or non-industrial meaning the problems and hazards of gas hydrate in many areas are being investigated

کلمات کلیدی:

Gas Hydrate, Methane, Hazards, Application

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/22239>

