

## عنوان مقاله:

The Investigation of Methods of Preventing the Formation of Gas Hydrates

## محل انتشار:

پنجمین کنفرانس بین المللی پژوهش کاربردی در شیمی و مهندسی شیمی با تاکید بر فناوری های بومی ایران (سال: 1397)

تعداد صفحات اصل مقاله: 18

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## خلاصه مقاله:

Iran as a country with rich sources of natural gas has to deal with the problem of the formation of gas hydrate which can be problematic in petroleum and gas industries. The formation of gas hydrate can cause flow reduction, block the pipeline and sometimes lead to an explosion of pipelines. In terms of the structure, hydrate is a solid, physically resembling ice and is obtained by physically mixing water with some carbohydrates existing in natural gas. Almost all the works done recently on predicting the conditions of the formation of hydrate crystals have been based on the science of thermodynamic. These models all have similar hypotheses. Unlike experimental models, thermodynamic models benefit from stronger theoretical bases and can consider intermolecular effects in a better way. All the available models for predicting the characteristics of hydrate phase use the well known model of van der Waals – Platteeuw which has been reformed.

## کلمات کلیدی:

Gas, Hydrate Crystal, Van der Waals – Platteeuw model, Pipeline, Thermodynamic

## لینک ثابت مقاله در پایگاه سیویلیکا:

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