

## عنوان مقاله:

Experimental study of R22 (CHClF<sub>2</sub>)hydrate formation kinetic in the presence of SDS surfactant

## محل انتشار:

هفتمین کنگره ملی مهندسی شیمی (سال: 1390)

تعداد صفحات اصل مقاله: 11

## نویسندگان:

maryam daraee - School of Chemical, gas and petroleum Engineering, Semnan University, Iran

farhad varaminian - School of Chemical, gas and petroleum Engineering, Semnan University, Iran

maryam karamoddin - School of Chemical, gas and petroleum Engineering, Semnan University, Iran

## خلاصه مقاله:

In this work, kinetic of R22 hydrate formation conditions has been studied with regard to balance between three phase hydrate, liquid and vapor experimentally. Experiments once with pure water and again aqueous solution of SDS (sodium dodecyl sulfate) carried out to determine the effect of SDS as a surface active substance. Effect of SDS in R22 hydrate formation kinetic has been studied in different concentrations 300, 500 and 1000 ppm. Kinetic experiments on the same states of driving force and stirrer speed (910 rpm) has been done at six different temperatures 276.15, 278.65, 280.15, 281.65, 283.15 and 285.15 K. Also hydrate formation of the refrigerant R22 is worked with stirrer speed 400 rpm and 650 rpm. The experimental results show that the use of SDS as an active substance with low surface tension between liquid and gas, increase hydrate formation rate in low stirrer speed (400 rpm).

## کلمات کلیدی:

surfactant ,r22hydrate,SDS,gas hydrate

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/340835>

