

عنوان مقاله:

Poly Ethylene Oxide Effect on Methane Hydrate Formation inhibition and stabilization

محل انتشار:

چهاردهمین همایش بین المللی نفت، گاز و پتروشیمی (سال: 1389)

تعداد صفحات اصل مقاله: 1

نویسندگان:

m sina - chemistry and petrochemical research deviation

z haghghian

m mohammadtaheri

n gholipour

خلاصه مقاله:

methane hydrate formation and phase equilibria in the presence of poly ethylene oxide compounds were investigated by using an isochoric autoclave and high pressure differential scanning calorimetry system. Indeed, the present work is a study on the effect of these materials in the methane hydrate formation process taking into account the formation conditions P&T and hydrate phase boundary points results showed that in the methane hydrate formation PEO poly ethylene oxide compounds with molecular weight between 300 and 1000 operate as thermodynamic inhibitor. PEO with molecular weight between 30000 and 1000000 in concentration of 0.5-1.0% can prevent the hydrate formation as a kinematic inhibitor but in concentration of 0.2-0.5% help the hydrate formation and in the other word can say it stabilizes the methane hydrate crystals. the precise and reliable thermodynamic calorimetric data on such hydrate formation and dissociation revealed that molecular weight and concentration plays important role in these components behavior.

کلمات کلیدی:

gas hydrate, poly ethylene oxide, phase diagram, stabilizer, inhibitor, methane gas hydrate, thermodynamic inhibitor, kinetic inhibitor

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/103449>

