

CODEGEPRA Investigation of cyclopentane hydrate in the presence of KCl and an equal-mass mixture of KCl - NaCl during crystallisation and quick dissociation processes

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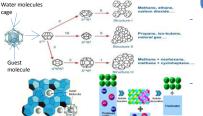
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Introduction

Hydrate is potentially utilized in many applications such as natural gas storage [1], [2]; carbon dioxide capture [3]; especially desalination [4]. However, hydrate formation generally occurs under high pressure and low temperature when the guest molecules are gases

Cyclopentane hydrate (Structure II) can form at atmospheric pressure at a temperature near 280K [5], [6], [7]. For applying cyclopentane hydrate in salt-removal process, it requires a deep knowledge on cyclopentane hydrate in the presence of salts



Hvdrate structure

Guest molecules

Hydrate structure

Cavity types

Objective

Investigate temperature and conductivty of cyclopetane hydrate behaviors formation and dissociation in pure water and in the presence of salts

GasHyDyD Centre

Determine the equilibrium temperature of cyclopentane hydrate in presence of KCl, NaCl and a mixture KCl - NaCl following a quick dissociation procedure

