

14th International Conference on the Physics and Chemistry of Ice (PCI-2018
in Zürich)



Contribution ID: 97

Type: **Poster**

Methane dynamics and pressure induced hydrogen bond symmetrisation in filled ice methane hydrates

Tuesday 9 January 2018 12:35 (1h 30m)

We report the results of Raman spectroscopy and quantum thermal bath molecular dynamics simulations in methane and hydrate at pressures up to 150 GPa. We have found signatures of methane ordering, hydrogen bond symmetrisation and new high pressure phases.

Significance statement

We have shown the stability of methane clathrate up to 150 GPa. Shown the presence of new ordered phase.

Author: Dr GAAL, Richard (EPFL SB ICMP EPSL)

Co-authors: Prof. FINOCCHI, Fabio (UMPMC); Mrs BOVE, Livia Eleonora (CNRS & Université P&M Curie, EPFL); Dr DEPONDT, Philippe (UMPMC); Prof. GILLET, Philippe (EPFL); Mr SCHAACK, Sofiane (UMPMC); Mr RANIERI, Umbertoluka (EPFL)

Presenter: Dr GAAL, Richard (EPFL SB ICMP EPSL)

Session Classification: Poster & Lunch