Geophysical Research Abstracts
Vol. 18, EGU2016-15577, 2016
EGU General Assembly 2016


# Mineralogical implications of Consert permittivity characterization of 67P.

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On 12 November 2014, after the Philae lander descent and rebounds, COmet Nucleus Sounding Experiment by Radio Transmission (CONSERT) restarted operating at 18h56 UTC and continued until 04h06 UTC, for the first investigation of the internal structure of a comet nucleus. Then, analysis of the signal propagated throughout the upper part of “head” of 67P/C-G allows us to estimate an average permittivity approximately 1.27 (Kofman, 2015).

This average permittivity induces constraints on permittivity of the refractory components. We analyze these constraints using the data from laboratory measurements of permittivity and the mixing formulas.
Finally we discuss the implication on composition and mineralogy of the 67P dust.