

# Planetary Science Conference

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## *Origin of faculae on the dwarf planet Ceres*

**Prof. dr hab. Leszek Czechowski**  
**Centrum Badań Kosmicznych Polskiej Akademii Nauk**

[POSTER]

Faculae are bright spots (made of light matter) observed on the surface of Ceres. They can be divided into four types: (a) floor faculae, (b) faculae on Ahuna Mons, (c) marginal/wall faculae found on the rims or walls of craters, (d) faculae in the form of bright ejecta blankets. Faculae(a) are usually attributed to the evaporation of brines. However, the recent existence of bodies of water on the surface of Ceres is unlikely. It is suggested that faculae (b) and (c) were formed by meteoroid impacts. Impacts are treated as a mechanism for covering and later uncovering deposits of bright matter. We have pointed out several problems with this hypothesis and, based on our numerical experiments, we have proposed other processes, which may be responsible for the formation of faculae.