



Enceladus

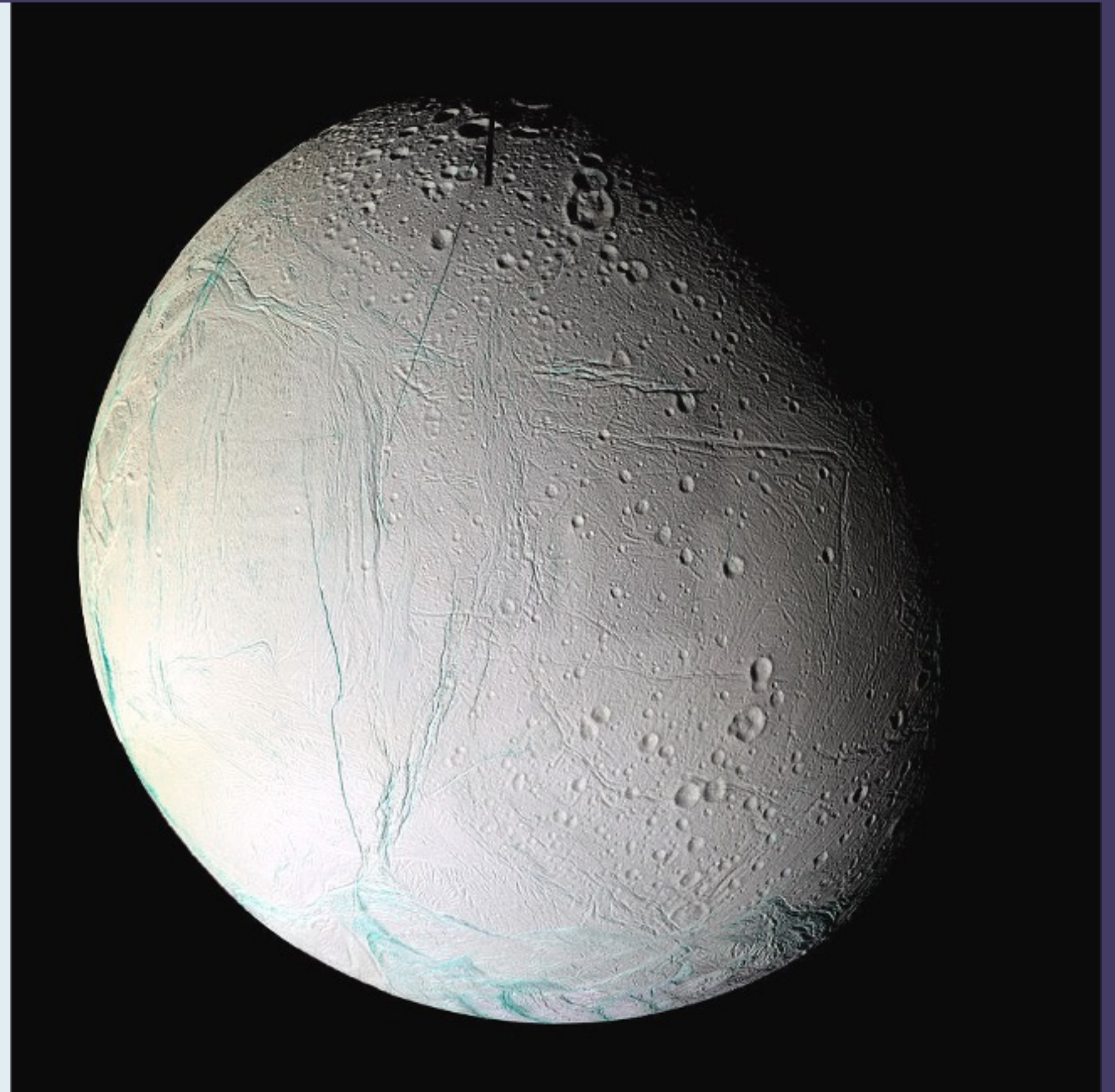
The Mysterious Moon of Saturn



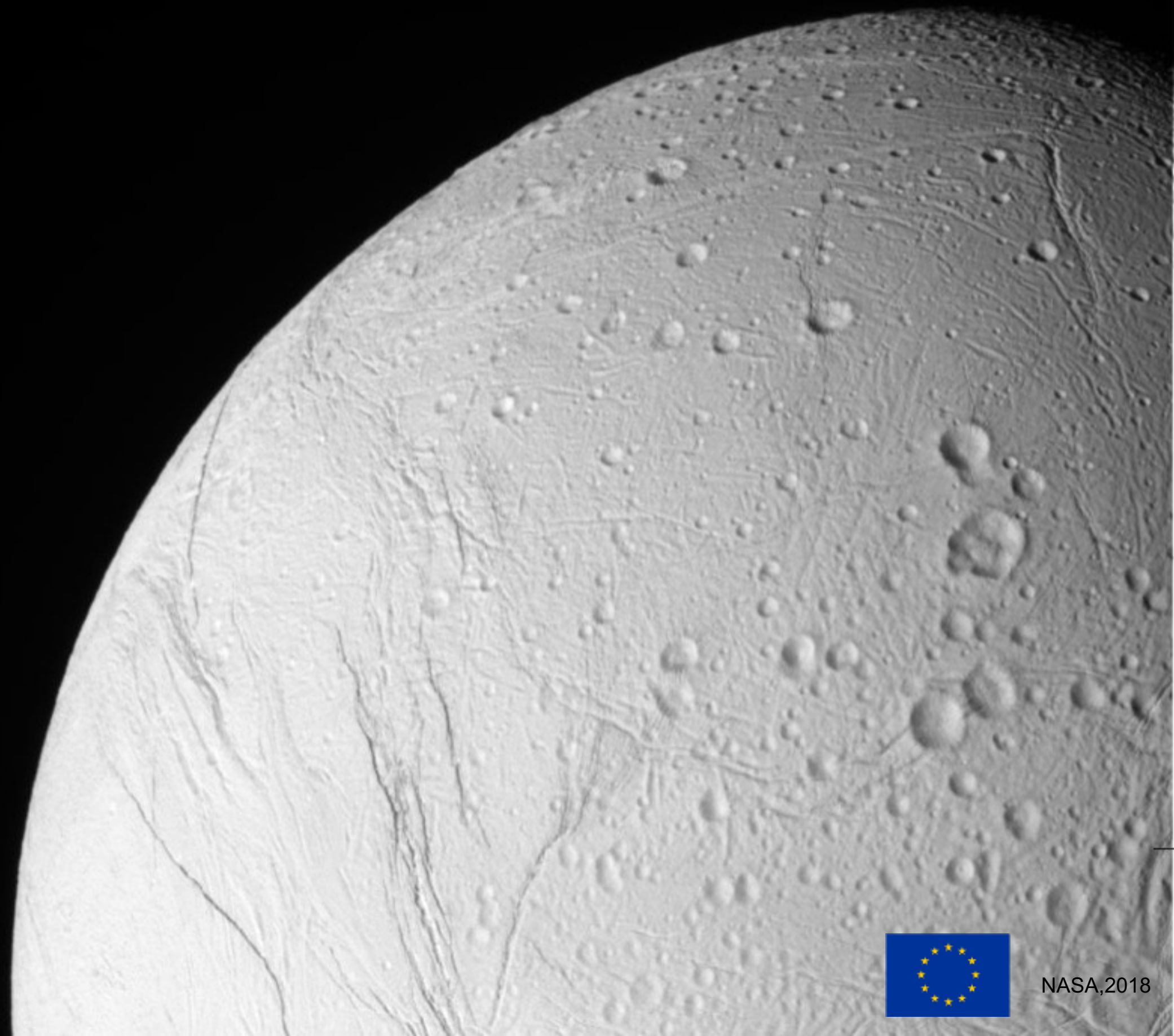
Objectives

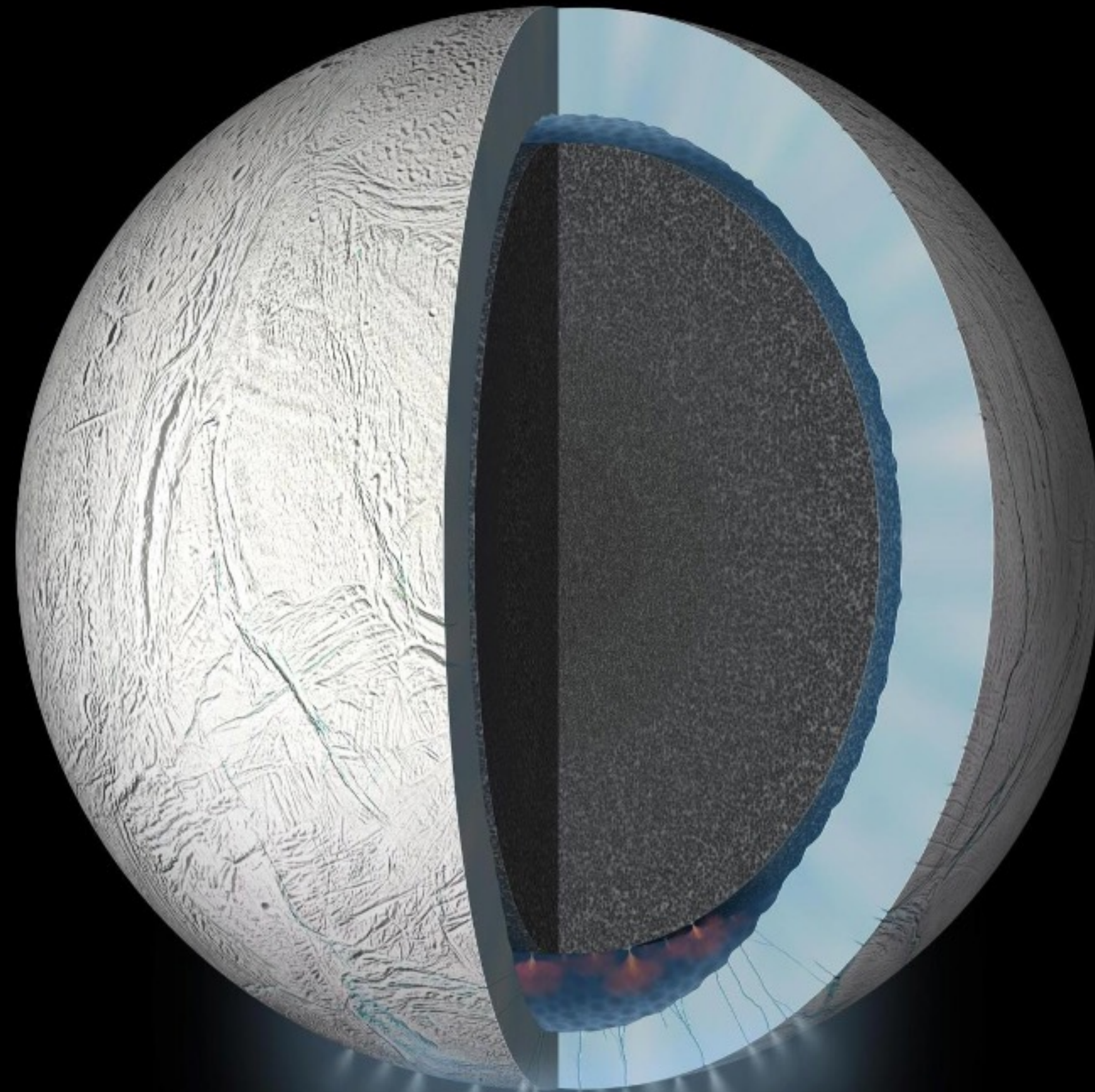
By the end of this lesson you will be able to:

- Understand the nature of the subsurface oceans of Enceladus
- Understand principles of convection, chemistry and formation of hydrothermal vents
- Understand the potential for life in these environments



Enceladus: the frozen moon





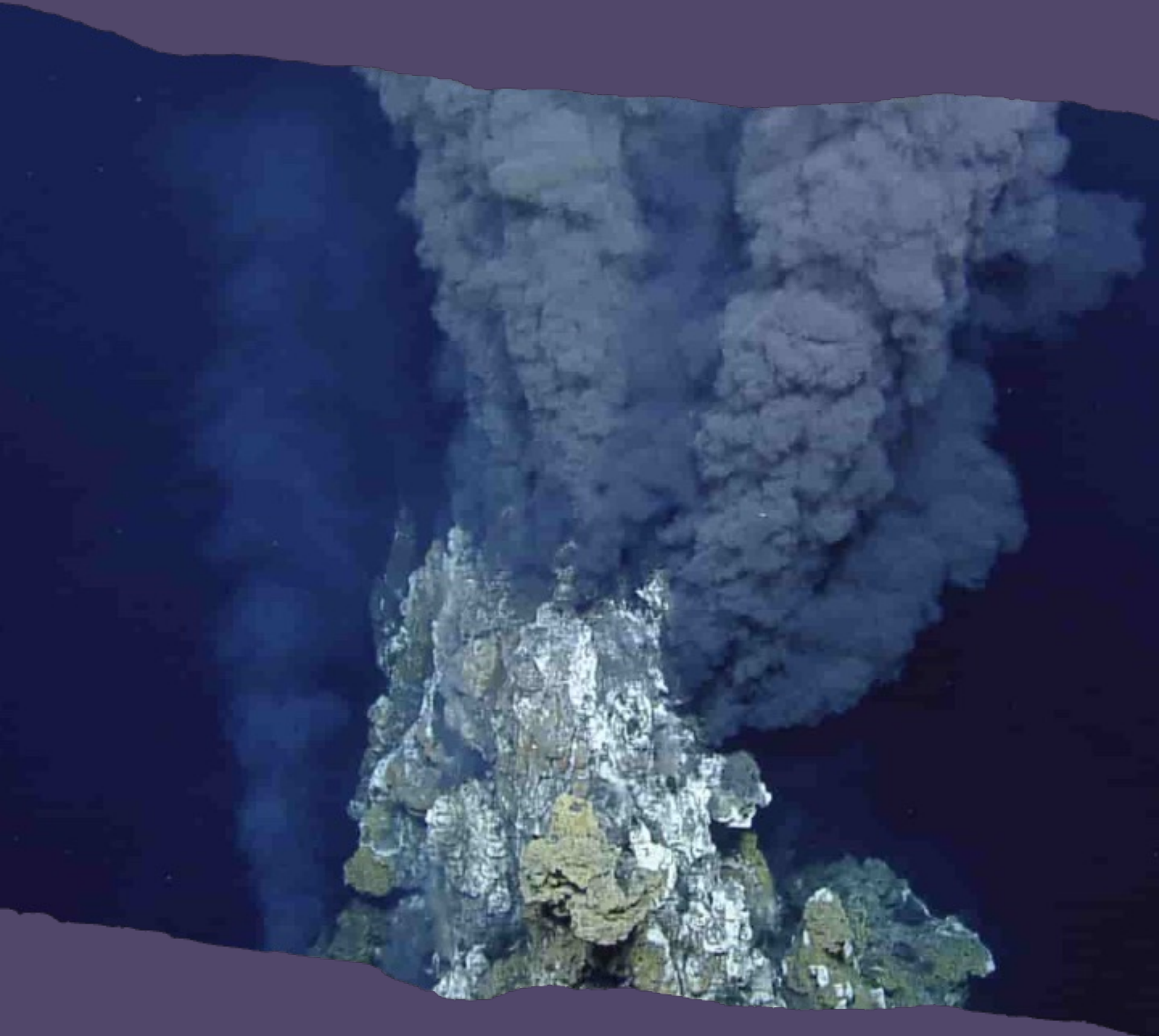
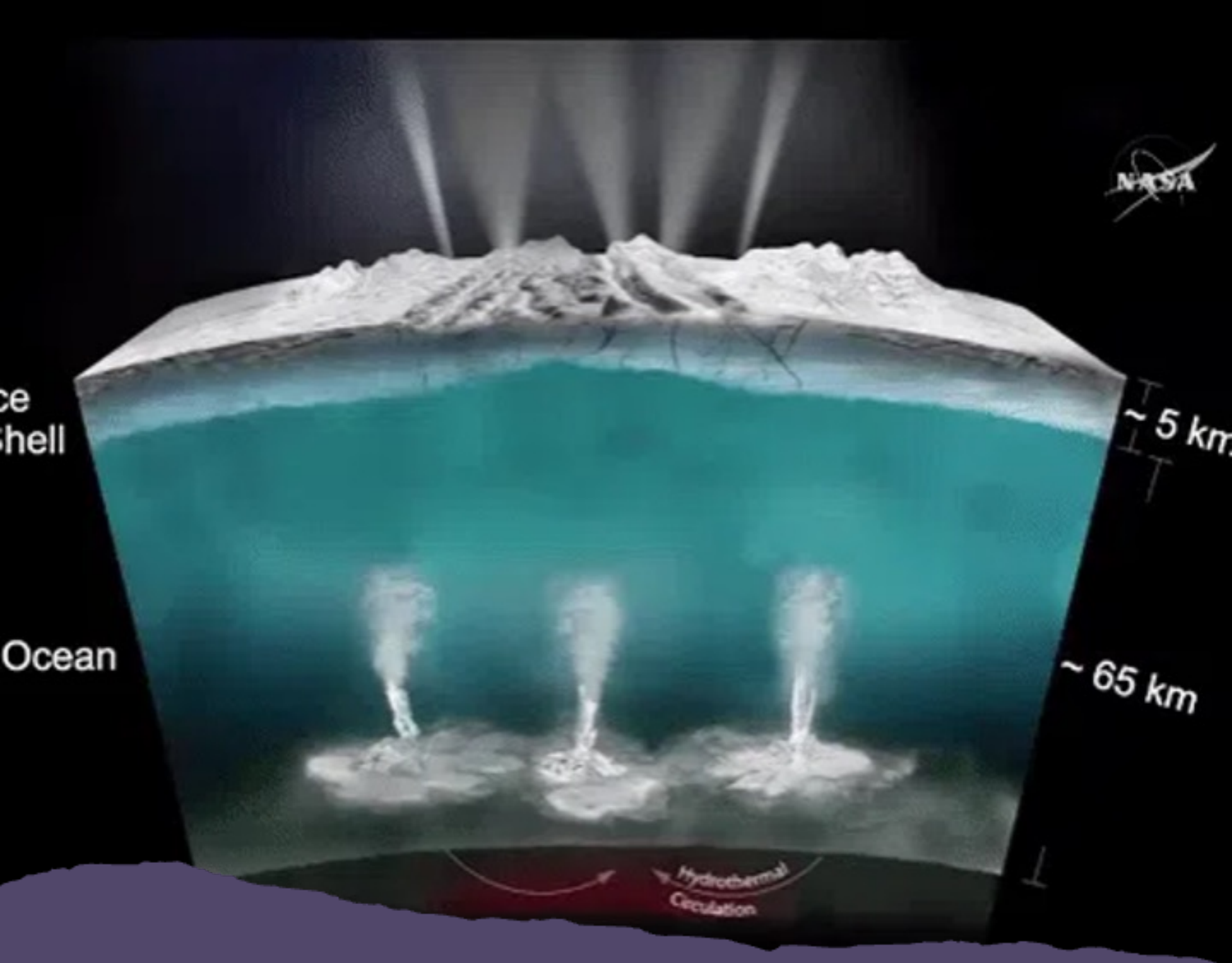
The subsurface ocean of Enceladus



Hydrothermal vent demonstration

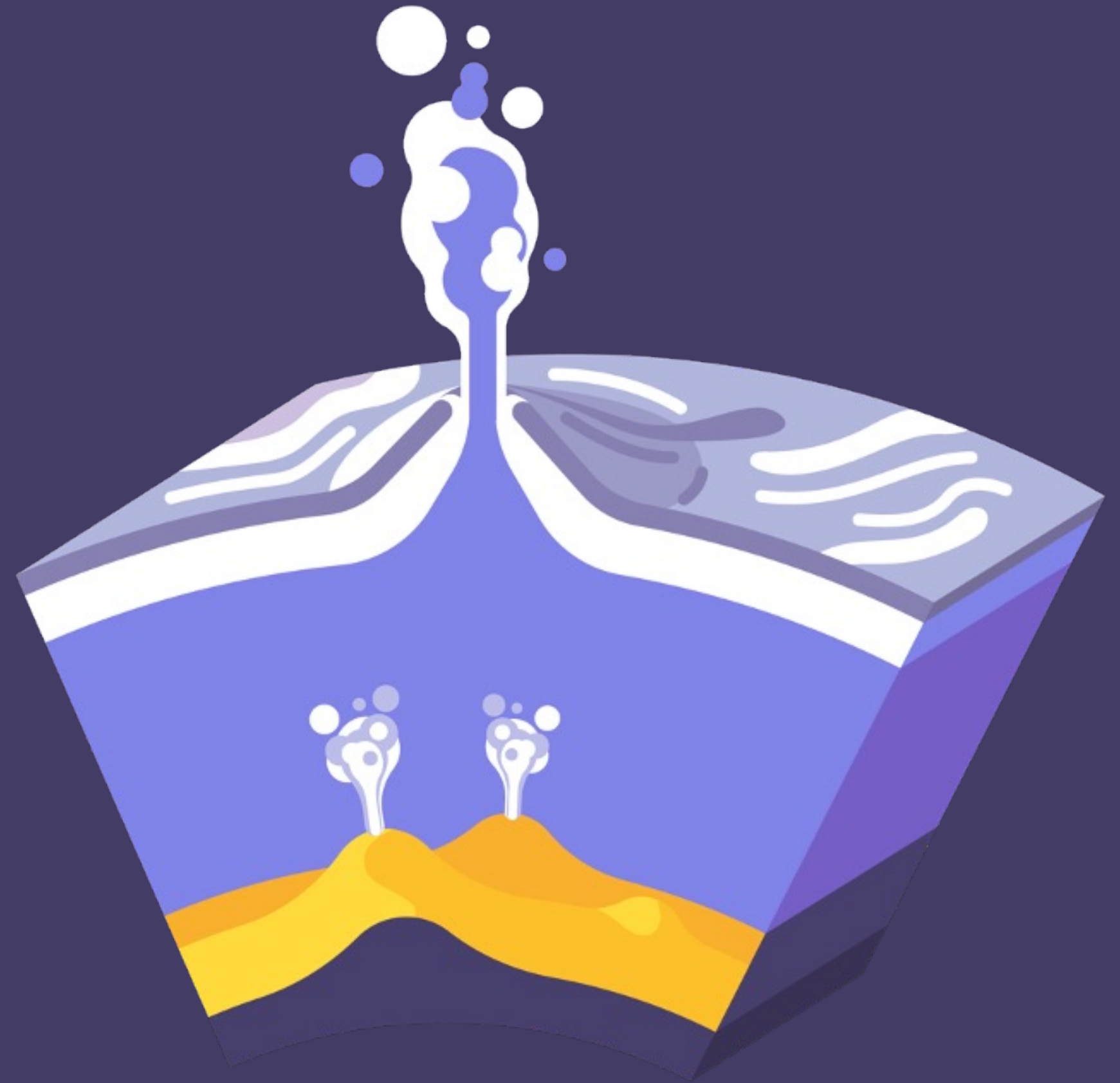


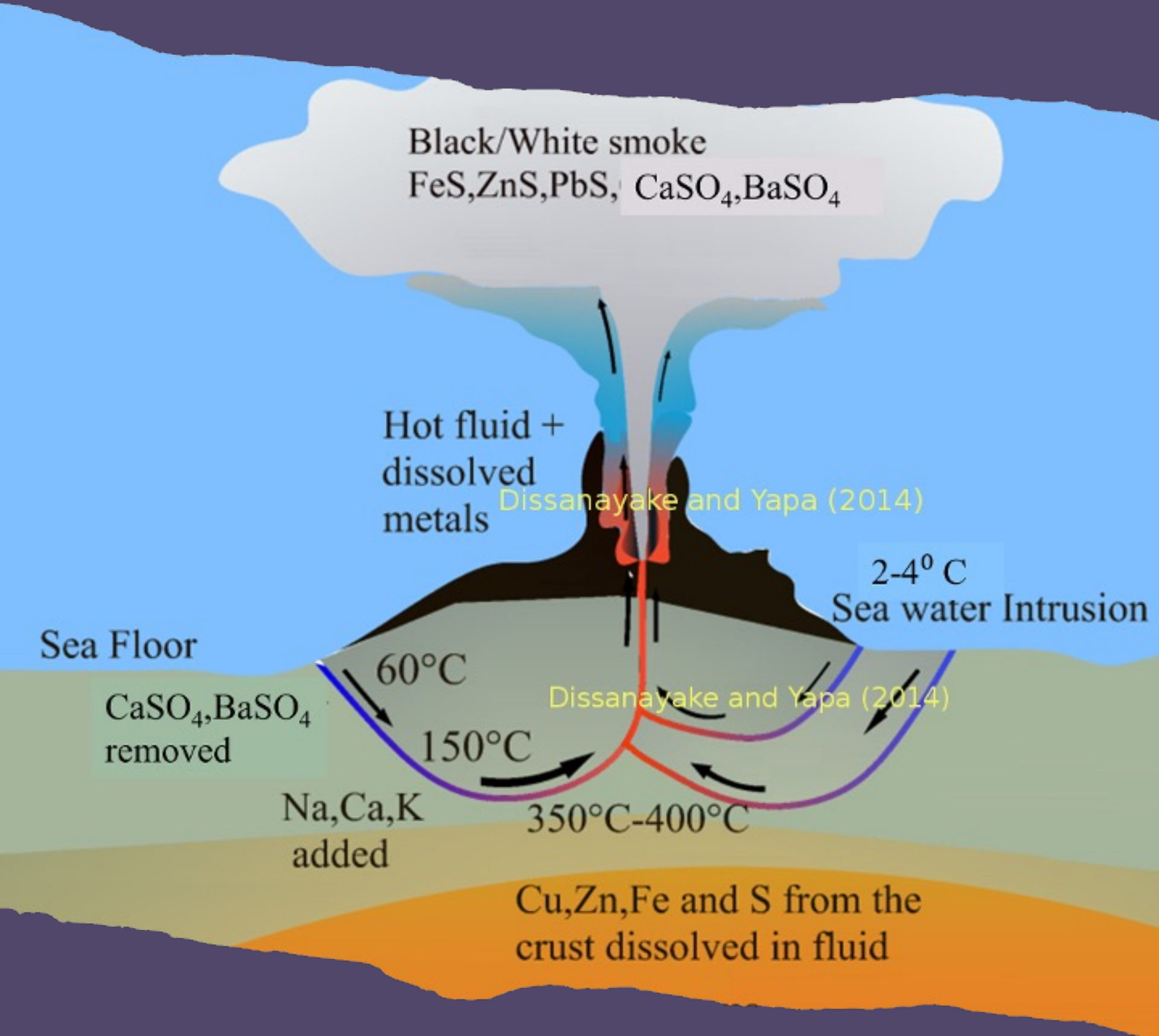
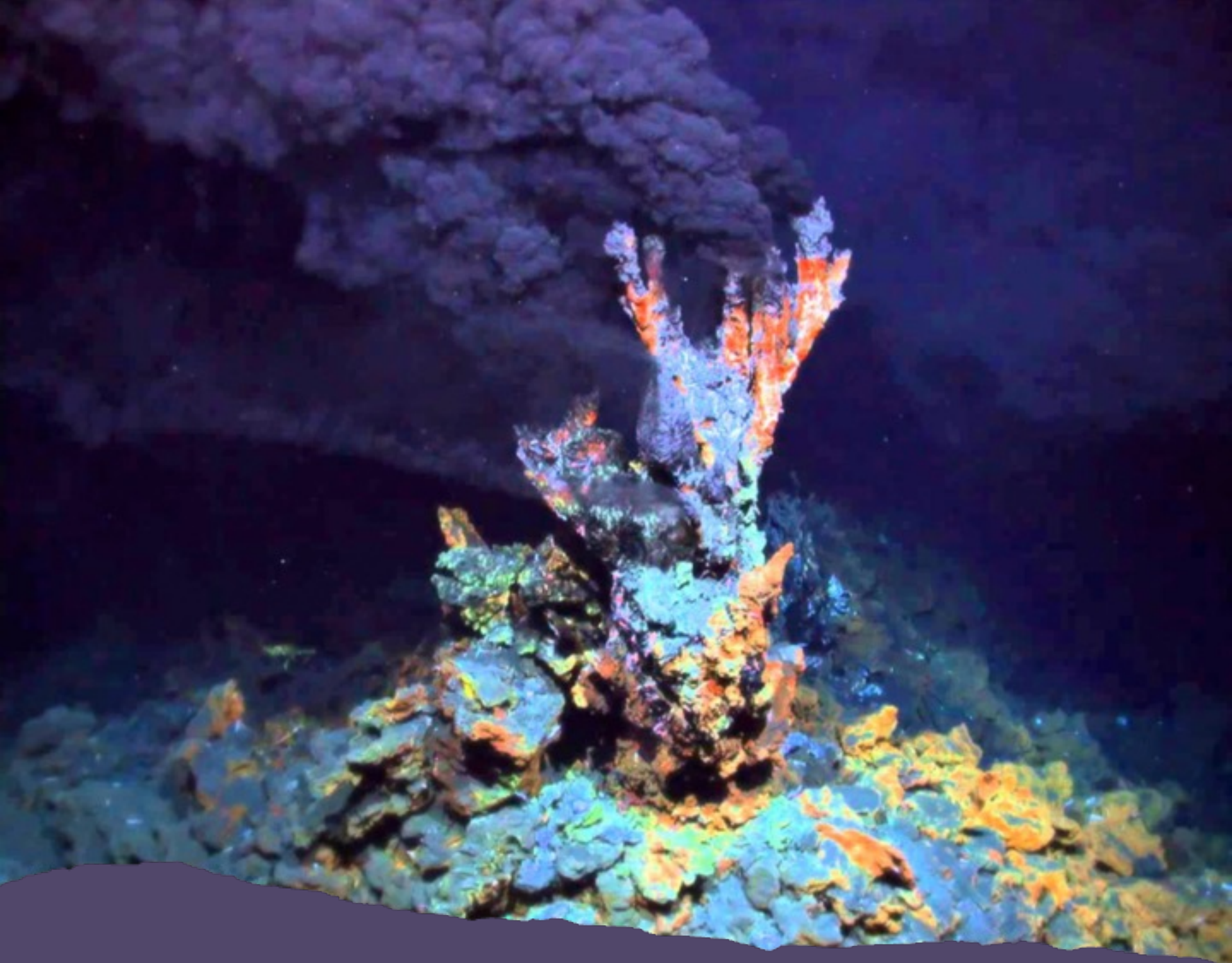
<https://www.youtube.com/watch?v=LQAO2sLDPsc>



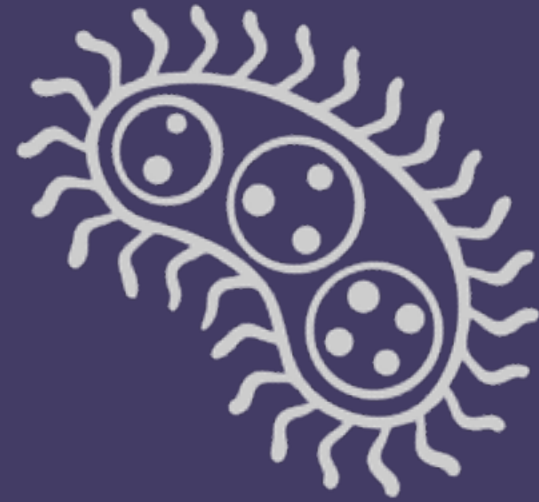
Hydrothermal vents

Hydrothermal vents: convection currents

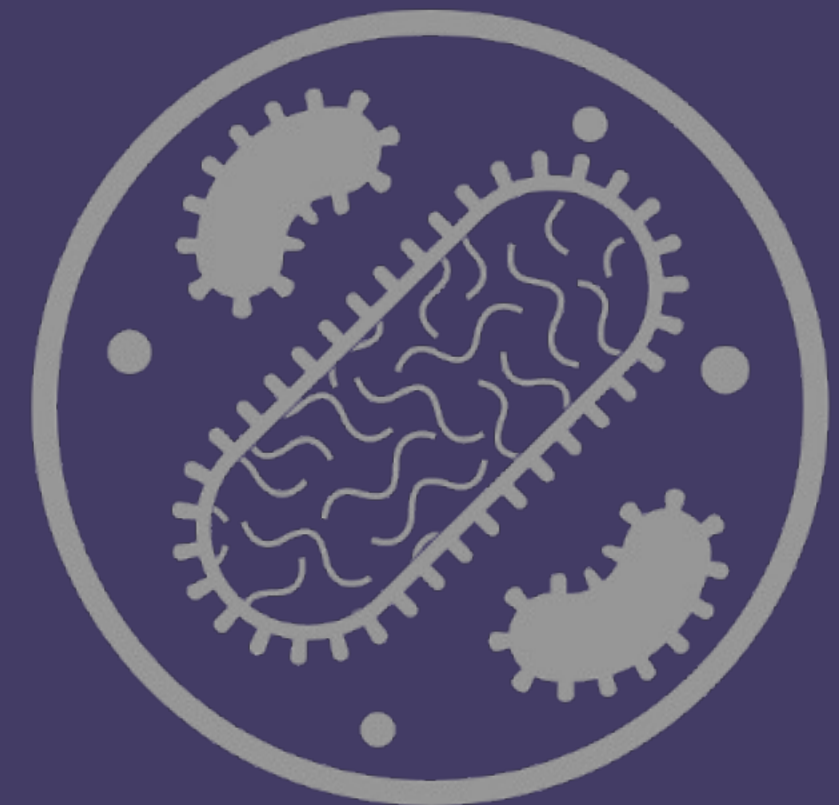
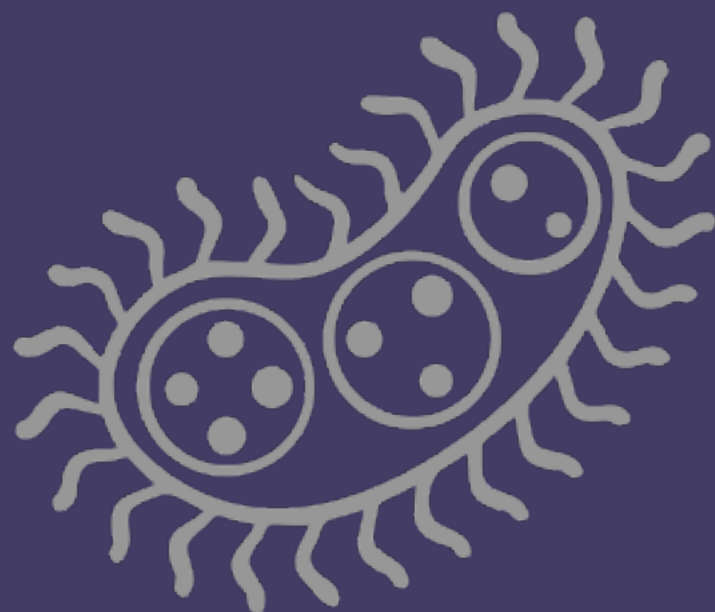
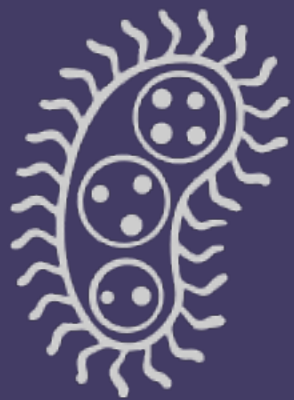




Hydrothermal vents



Do you think there could be life in the hydrothermal vents of Enceladus?



Recap

Now we can...



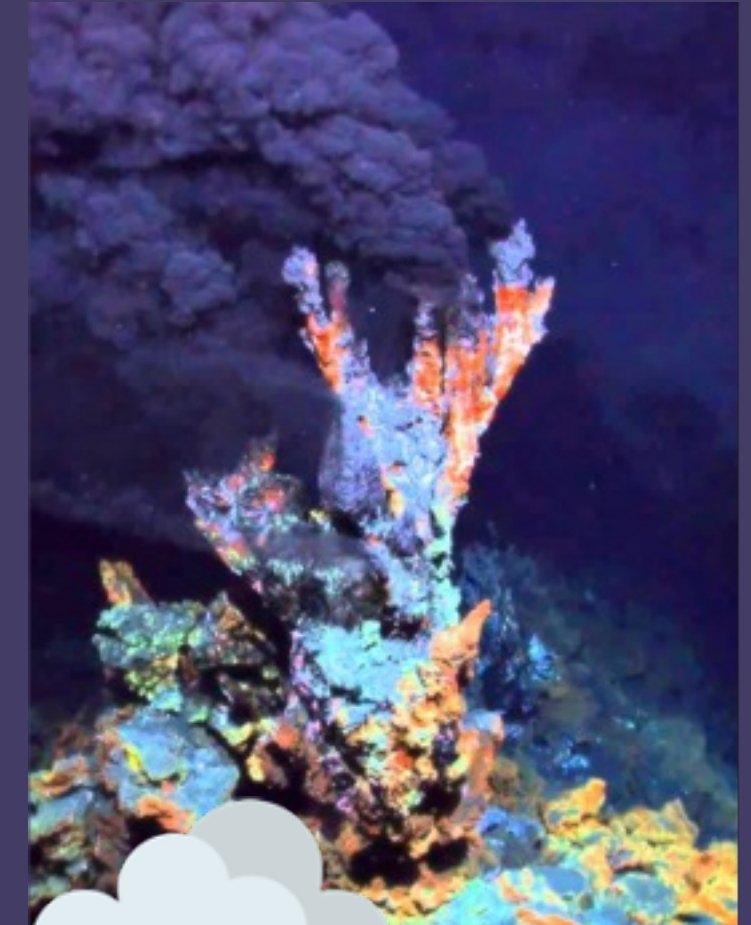
1

Describe Enceladus and understand its importance and interest as a moon



2

Understand the chemistry and formation of hydrothermal vents



3

Understand the importance of hydrothermal vents in life on Earth and potentially Enceladus