Liquid water is a fundamental source of energy for metobolism and the right chemicals. Chemicals spewing from underwater trenches, solidifies and creates the conditions needed for the first cells to form. All in one in Ocean Moon is Enceladus.

Enceladus must be photographed for only one reason: The Life Potential. Check out what we need for life, as Morgan Cable,who is research scientist, says (in the video of JPL, Deep Dive into Enceladus Plume) “Life needs three things: Water, chemistry and energy. Enceladus has these three things.

First, Hydrogen gas could potentialy provide a chemical energy source for life is pouring into the subsurface ocean of Enceladus from hydrothermal activity on the seafloor. There were elements in the plume that clearly showed that the water in the ocean was hydrothermal. As Morgan Cable says “They may be different but all hydrothermal vents tend to have not just bacteria and other microorganisms, but large, multicelluar complex organisms as well.”

Second, Enceladus has CO2,H2,ammonia and methane. Last one is especially important because of the fact that methane is produced by all kinds of organisms on Earth, including single celled archive. Therefore this could be an indicator that there’s life on Enceladus, too. Also organic materials in that icy moon are twenty times denser than expected according to Cassini Mission.

Last thing is geologic activity of Enceladus, on Earth geysers and hot springs are home to bacteria with pedigrees dating back to the beginning of life. They can also breathtaking. With these reasons Enceladus needs to be explored. Cassini has solved how at least one of Saturn’s rings formed and this may help solve the bigger mystery of life. According to the source of Space and Astronomy, Enceladus-Saturn’s Moon With the Mystery Geysers, “Enceladus wins out the game over Mars over Europa over Titan even simply because of accessibility. It’s accessible if these jets are deriving from liquid water then they’re there for the sampling.”

Every discover in Enceladus (i.e geysers, tiger strips, its heat, evidence of chemical) made us more excited. As Jason Major,who is science writer,says that “Discovery of water voper jets on Enceladus is probably the most important discovery of the entire Cassini Mission.” (in Science Channel-Enceladus is an Active World) and as Linda Spilker,who is Cassini Project scientist,tells us; “ Enceladus discoveries have changed the direction of planetary science.”

When we analyze the structure of Enceladus,we clearly see that it’s like a hidden treasure with uncountable mysteries. Its geysers shout out “Discover us!”.

You’ll never know what you are missing if you never go. To really know something, you should search in deep and we can’t even imagine that how deep is this tiny moon. Just let Enceladus to be our shining future!

Student name surname:Rukiye Aslı ŞAHİN

Student’s Birth Date:19.04.2002

School name&address& phone number:İSTANBUL BAHÇELİEVLER DEDE KORKUT ANADOLU LİSESİ

Cumhuriyet Mah. Mevlana Cad.No 3 , 34186 Bahçelievler/İstanbul

02124363451

Consultant teacher:Ilknur KAVAK ERGIN

Phone number:05068128148

e-mail: kavakilknur@hotmail.com