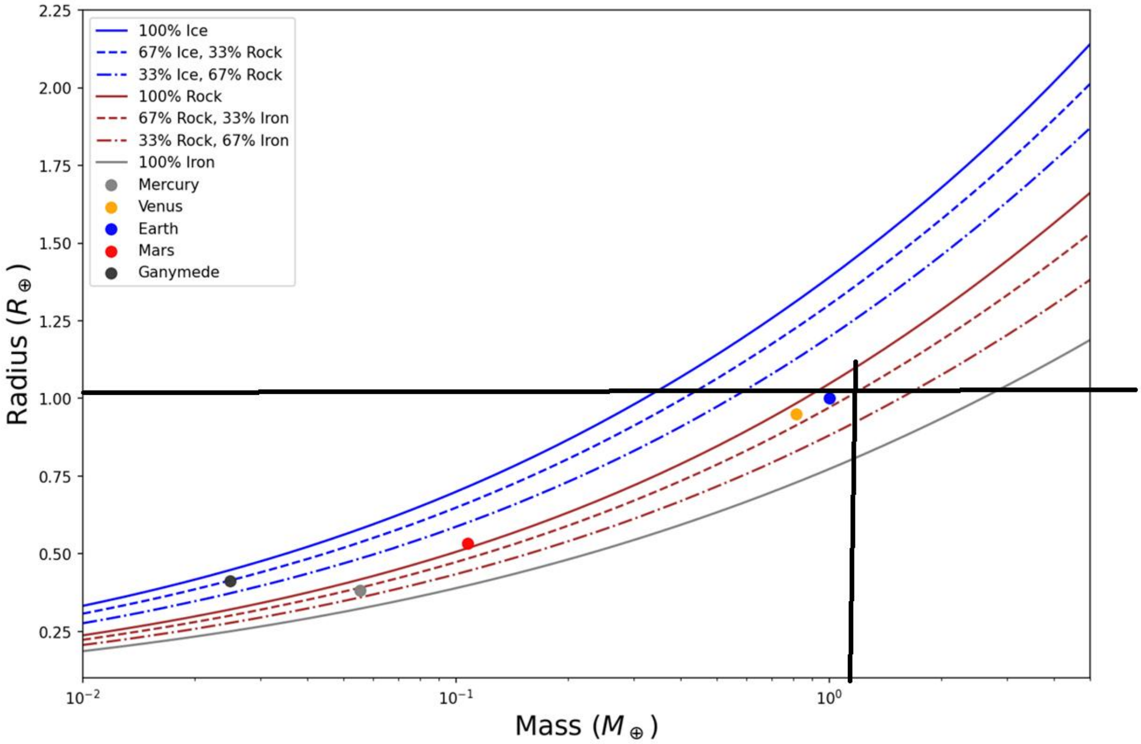
1. To observe the transit of a planet, it's inclination should be 90 degrees with respect to Earth. If we are not viewing it in such a way that the planet passes through our field of view of the star, we will not be able to view a transit
2. From Figure 1 we can see that the planet is transiting the star once every 5 days(approximately). So, this must be the period of the planet
3. We can estimate the radius by measuring the transit depth.
   $\Delta L/L = (R\ planet/R\ star)$ ^2
   The relative flux when the planet passes in front of it is in between 0.9980 and 0.9975 so let's assume it to be 0.9977
   $\Delta L/L= (1-0.9975)/1 = 0.0025$
   Sqrt(0.0025)* 0.2* R⊙ = R planet

   So, the radius of the planet is 0.01 R⊙
4. K is half of the difference between the crest and trough values of the radial velocity graph. In the case, it is (2-(-2))/2 = 4/2 = 2m/s
5. Mp = K/sin(i(2πG/PMs^2)^1/3)
   Mp = 2/ sin(90* ((2*3.14* 6.67* 10^-11)/5*3600*24*2*1.98*10^29*1.98*10^30)^1/3)
   Mp = 2/ sin(90* ((23.04*10^-11/3.38*10^65)^1/3)
   Mp ~1.17 * 10^25 kg
   Mp ~ 1.97 Me
6. We have found out previously that Rp = 0.01 R⊙
   Now, $R\odot = 109$ Re
   So $Rp = 1.09$ Re



The two lines intersect on the line depicting a composition of 67% rock and 33% iron. So, the composition of GJ 8999b must approximately be that