

Exercise 1.1 - Energy of meteoroids

v.02

Problem Statement

The meteoroids on terrestrial orbit have an average density of 2.5 g/cm^3 and a speed of the order of 13km/s.

For this speed, calculate the diameter of a meteoroid (sphere), which energy, if transferred without loss to 200g of water at 20°C, would bring this water to:

1. 100°C
2. Totally vaporize it

Solution