Exercise 66

The distance between the centers of the two oxygen atoms in an oxygen molecule is 1.21×10^{-8} cm. What is this distance in inches?

Solution

Convert the given distance $(1.21 \times 10^{-8}$ cm) from centimeters to inches by multiplying by the appropriate conversion factor.

$$1.21 \times 10^{-8} \text{ cm} = 1.21 \times 10^{-8} \text{ cm} \times \frac{1 \text{ in}}{2.54 \text{ cm}} \approx 4.76 \times 10^{-9} \text{ in}$$