51093, Physics, Mechanics — Kinematics — Dynamics

Question   Energy absorbed by each molecule(A2) of a substance is 4.4 * 10raised to power -19 j and bond energy per molecule is 4.0 *10 raised to power -19j .the kinetic energy of the molecule per atom will be?

Solution   That will be just the difference between absorbed energy and bond energy divided by 2 as we have 2 atoms after splitting:

$$E = (4.4 \cdot 10^{-19} - 4.0 \cdot 10^{-19})/2 = 0.2 \cdot 10^{-19}\, J$$