

NEXT-TIME QUESTION



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Answer:

Temperature is proportional to energy per molecule. How much energy depends on how many molecules. When you touch the inside surface of the oven, you're making contact with many, many molecules, and the flow of energy is a painful experience. Although the energy per molecule is much greater in the sparks of the firework, you make contact with only a relatively few molecules when a spark lands on you. The corresponding low energy transfer borders on your threshold of feeling.

High temperature at low energy is like high voltage at low energy. Both a high-temperature spark and the high voltage of a charged balloon are harmless because their energies are very small.

