

# microwave oven

"All **microwave ovens** contain a magnetron which is a tube in which electrons are affected by magnetic and electric fields. They produce micro wavelength radiation at about 2450 Mega Hertz (MHz) or 2.45 Giga Hertz (GHz). This **microwave** radiation interacts with the molecules in food. The wave energy inside the oven changes polarity from positive to negative with each cycle of the wave. These changes of polarity happen millions of times every second! Food molecules (especially the molecules of water) have a positive and negative end just like a magnet has a north and a south polarity.

"As these microwaves generated from the magnetron bombard the food, they cause the polar molecules to rotate at the same frequency millions of times a second. This is major agitation! (Much less agitation is used in pharmaceutical drug labs to separate or isolate molecules in the making of just about any thing they want.) This agitation creates the molecular friction, which heats up the food. The friction also causes substantial damage to the surrounding molecules, often tearing them apart or forcefully deforming them. The scientific name for this deformation is "structural isomerism".

[<http://www.healthyeatingontherun.com/dangers-of-microwave-ovens.html>]

NOTE: **Friction** does not create the **heat**. The heat is released from within the **atom**. See **Latent Force**

See Also

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**Atomic Cluster Heating**

**Dissociating Water with Microwave**

**Heat**

**heat engine**

**Law of Heat**

**Microwave**

**specific heat**

**Thermism**

**12.29 - Origin and Nature of Heat**

**12.31 - Heat Generated Through Resistance to Compression**

**7B.19 - Light and Heat**