



Benefits of infrared absorptive resonance on human body

Resonance describes the phenomenon of increased amplitude that occurs when the frequency of a periodically applied force (or a Fourier component of it) is equal or close to a natural frequency of the system on which it acts. [Wikipedia]

When an oscillating force is applied at a resonant frequency of a dynamic system, the system will oscillate at a higher amplitude than when the same force is applied at other, non-resonant frequencies. Frequencies at which the response amplitude is a relative maximum are also known as resonant frequencies or resonance frequencies of the system. [See Halliday et al Fundamentals of Physics (7th ed. 2005)]

Small periodic forces that are near a resonant frequency of the system have the ability to produce large amplitude oscillations in the system due to the storage of vibrational energy. Resonance phenomena occur with all types of vibrations or waves, including electromagnetic resonance. [Wikipedia]

A human body with temperature at around 37°C emits FIR with peak wavelength at around 9.4 microns based upon Wein's Displacement Law. [Wikipedia] (see Table and Graph set out below)

Our invention patented 360° far-infrared radiant electric heater provides FIR with major peak wavelengths between 9-12 microns as compared to quartz heating elements which operate at very high temperature and usually generate FIR with major peak wavelengths between 1.6-4.0 microns and also glaring visible light.

It is stated that this may help, through photo-bio-modulation and absorptive resonance, to stimulate and increase metabolism between blood and tissue, and promote regeneration and fast healing trough improved micro-circulation in blood, and to afford leisure and comfort heating and may also provide health benefits in helping to improve blood circulation and body metabolism and to relief pain and discomfort.

INFRARED SPECTRAL EMISSIVITY (%)	
Wavelength (μm)	FESHAN-TIANPIN-DOUBLE-HEATING-TUBE (FIR Lamp Heating Element B)
4	76.7
5	74.0
6	63.7
7	61.7
8	68.3
9	82.2
10	90.0
11	89.5
12	80.8
13	67.4
14	61.5
15	64.4
16	62.7
17	64.3
18	39.7
19	34.5
20	36.0

