

ELECTROMAGNETIC SPECTRUM



Ask Mish

Wavelength

Natural occurrence:

Penetration

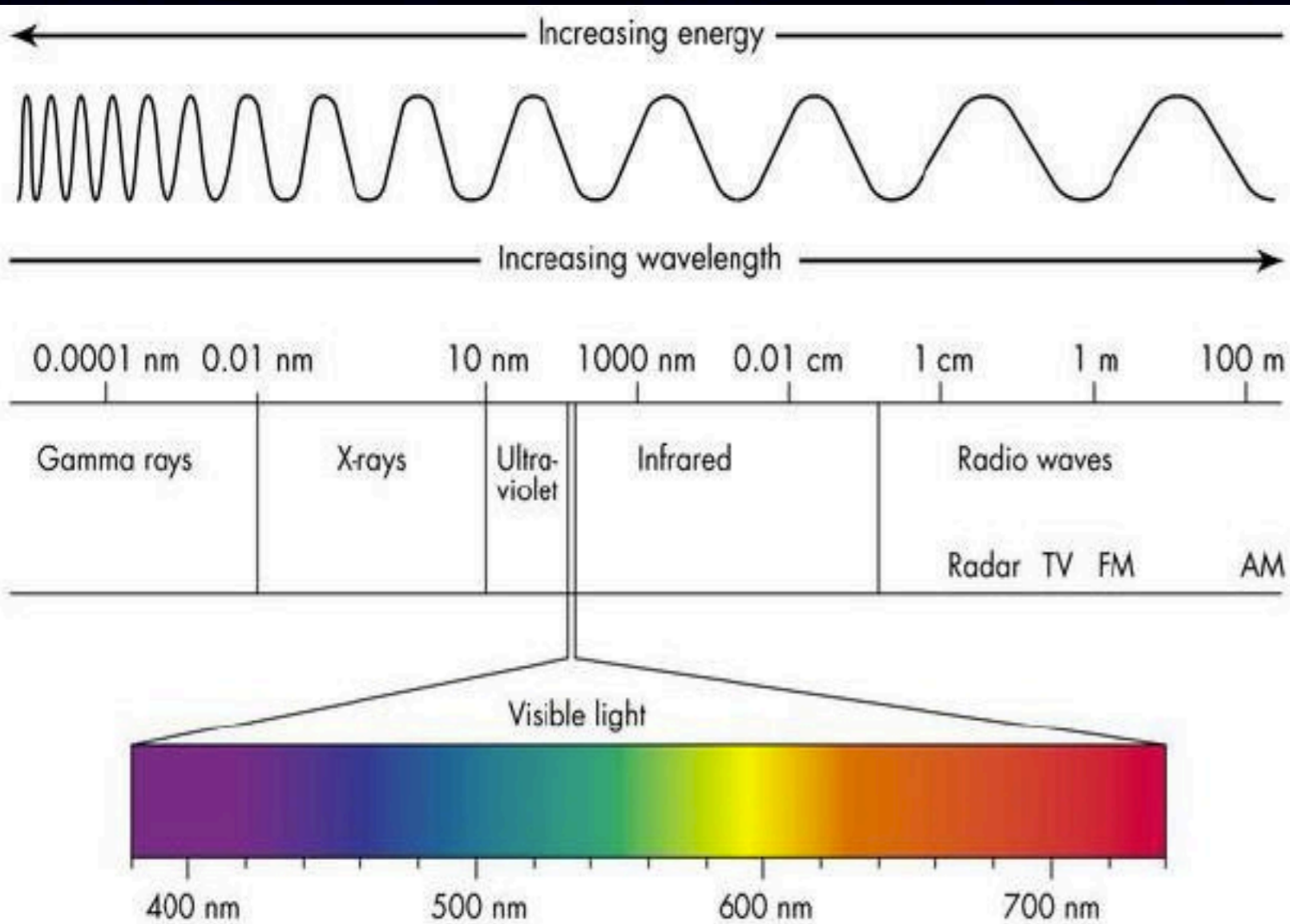
	gamma	X	UV	light	IR	MW	radio
	smallest L <1 nm	> nm ->10nm	>nm ->400nm	>nm ->700nm	>nm- 0.1 mm	>mm- 10 cm	>mm ->km
	highest frequency	<	<	<	<	<	<
	cosmic	cosmic	sun	stars	body w/ heat	cosmic	cosmic
	P:soft tissue	P:soft tissue	P: skin	reflected	emitted	NP	NP

NP=not
penetrant
to tissue/
skin

Electromagnetic Radiation



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- Definition: stream of photons of different frequencies/length of wave/energy
- Highest freq. = Gamma rays : from nucleus
- Next: X rays : excited electrons
- Ultraviolet, Visible light, Infrared
- Microwaves
- Lowest freq.= Radio waves