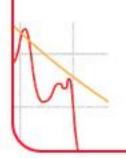
LONGITUD DE ONDA Y ABSORCIÓN

La Longitud de onda es el "color de la luz" y marcará la especificidad de un láser, es decir, su campo de aplicación.

Existen en el cuerpo elementos que absorben la luz láser, son los llamados cromóforos, que tienen una diferente afinidad para cada longitud de onda.

Los cromóforos más importantes en el cuerpo son: agua, melanina y hemoglobina.

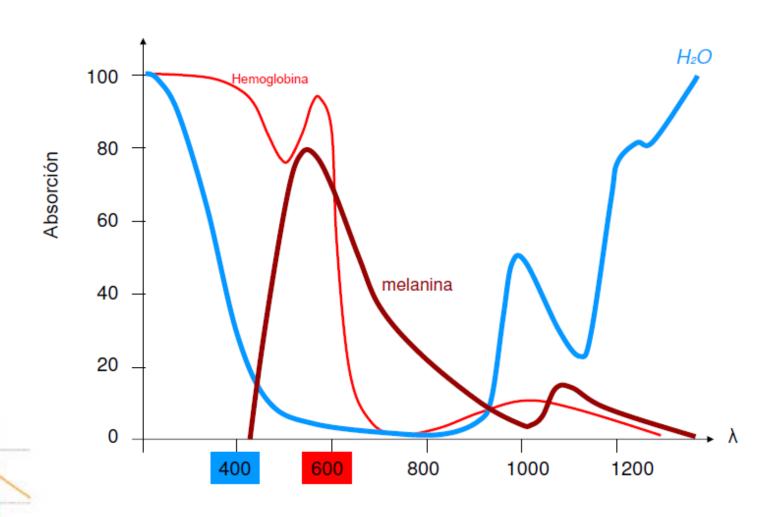




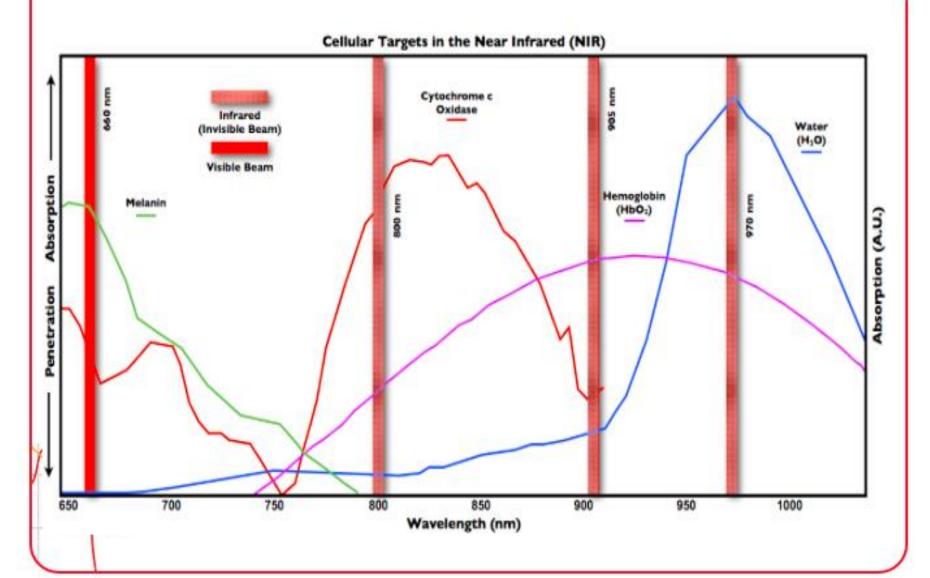




LONGITUD DE ONDA Y ABSORCIÓN

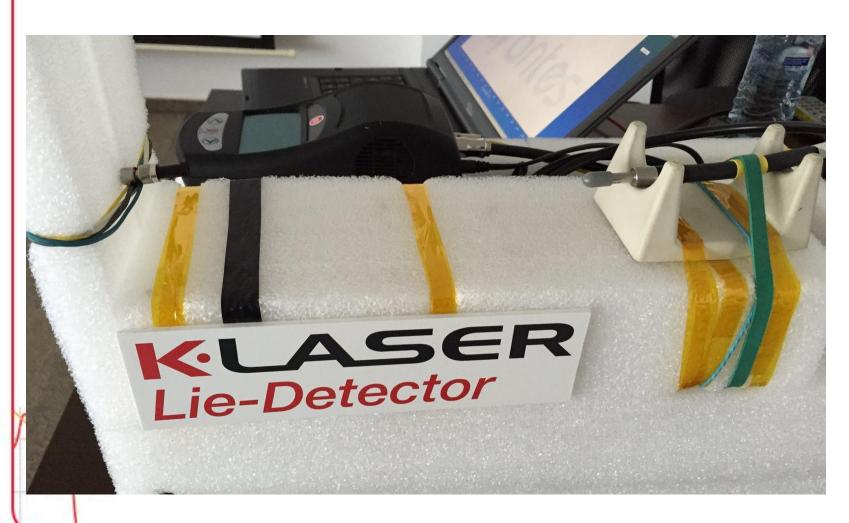


LONGITUD DE ONDA Y ABSORCIÓN



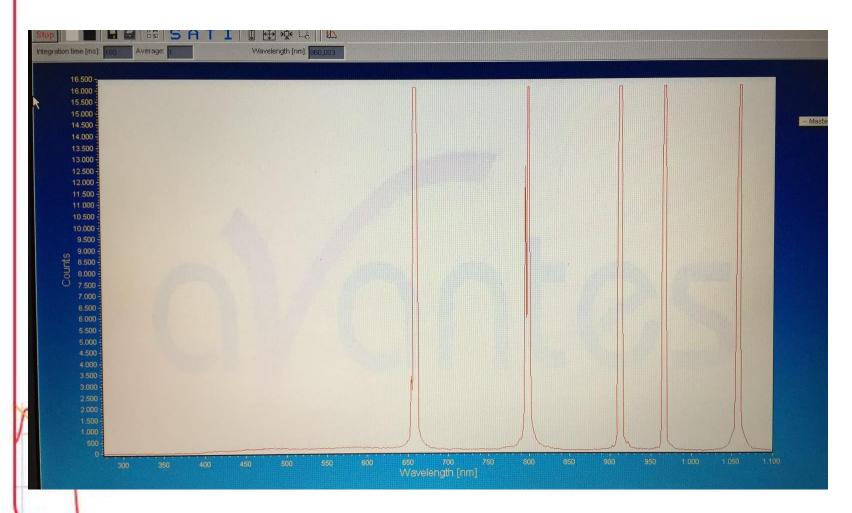












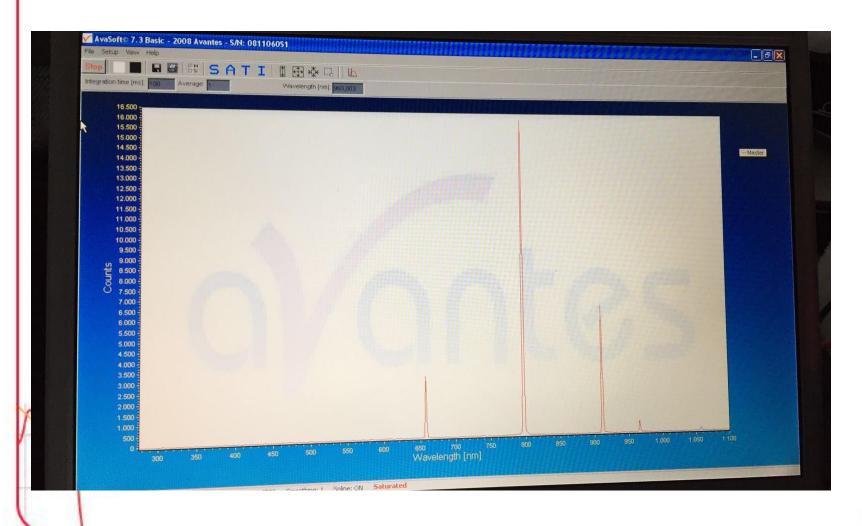














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For example, some manufacturers claim that their Class IV lasers (60 W, 980 nm laser) offer superb penetration through tissue (from 6-to-9 inches according to one manufacturer), and that "weak" class IIIB lasers (500 mW, 808 nm laser) hardly penetrate the surface skin barrier at all. However, in the chosen example below, the very opposite is the truth! Due primarily to its absorption by water in the tissue, 980 nm penetrates less than 808 nm, and this is not compensated by the higher power. At around 808 nm we actually have the best penetration into tissue, and increasing power only increases the depth of penetration marginally. With the higher superficial absorbance of the 980 nm laser there will be considerable heating, and, while heat is fine for many conditions, it is not of what photomedicine is constituted.

Fuente: http://www.laser.nu/lllt/pdf/Confounders.pdf