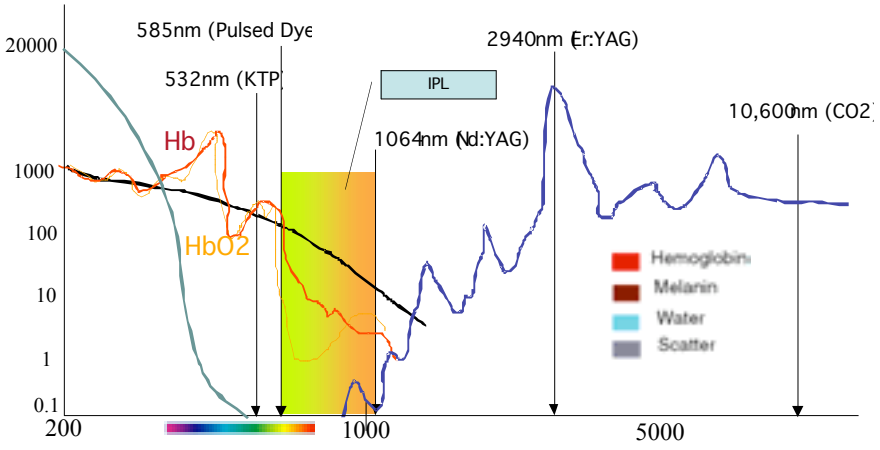
Absorption Spectra of Tissu



*HW Lim, NA Soter, editors, Clinical Photomedicine, New York, 1993

This well know absorption spectrum chart describes the absorption of a variety of basic tissue chromosphores at a variety of energy wavelengths.

Choosing the appropriate wavelength for a tissue chromophore is only one of a variety of important variables that must be determined in order to achieve a specific tissue change while not affecting change in the surrounding tissue.

Note that visible wavelengths have high absorption with visible tissue targets. Some of these wavelengths are competing for absorption chromophores.

IPL devices provide a wide spectrum of light wavelengths, and are only able to filter out broad bands of light from that spectrum, allowing other broad bands through to effect tissue.

As the tissue chromophores become less visible, or contain less pigment, the visible energy devices become less effective, the invisible energy devices become to become more effective or have higher absorptions. Use of near infra red devices can be further defined for effectiveness with visible light targets by the specific titration of light using pulse widths measurements to match specific target sizes. Another advantage of this wavelength of energy is the ability to view chromophores in terms of varying shades of light and dark. Rather than specific colors, the near infra red wavelengths sees the colors as varying shades of light and dark. The darker the target, the more absorption that takes place when using the near infra red wavelengths.