# Anisotropy

Within cerebral white matter, water molecules tend to diffuse more freely along the direction of axonal fascicles than across them. Such directional dependence of diffusivity is termed anisotropy.

Anisotropy /ˌænaɪˈsɒtrəpi/ is property of being directionally dependent, as opposed to isotropy, which implies identical properties in all directions. It can be defined as a difference, when measured along different axes, in a material's physical or mechanical properties (absorbance, refractive index, conductivity, tensile strength, etc.) An example of anisotropy is the light coming through a polarizer. Another is wood, which is easier to split along its grain than against it.