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(54) Title: DETECTING METHOD OF LIFE ACTIVITY, CONTROLLING METHOD OF LIFE ACTIVITY, AND TRANSMISSION METHOD OF INFORMATION CONCERNING LIFE ACTIVITY

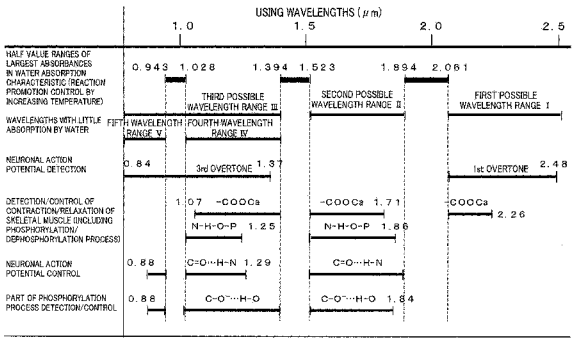


FIG.28 APPROPRIATE WAVELENGTHS FOR DETECTION/CONTROL OF LIFE ACTIVITY IN PRESENT EXEMPLARY EMBODIMENT/APPLIED EMBODIMENT

(57) Abstract: According to a measuring method or a control method of life activity, a life object is illuminated with an electromagnetic wave including a wavelength in a designated waveband, and a characteristic in a local area of the life object is detected, or a life activity thereof is controlled. This "local area" is an area constituted by one or more cells. The "designated waveband" is defined based on any one of the following phenomena: [1] transition energy between a ground state of a vibration mode newly occurring between atoms in a constituent molecule of a cell membrane and a plurality of excited states; [2] transition energy between vibration modes occurring between specific atoms in a molecule corresponding to the activity of the life object or the change thereof; and [3] a specific chemical shift value in Nuclear Magnetic Resonance.

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