Abstracts

Microwave and Temperature Effects on the Murine Ocular Lens In-Vitro

P.J. Stewart-DeHaan, M.O. Creighton, L.E. Larsen, J.H. Jacobi, W.M. Ross and J.R. Trevithick. "Microwave and Temperature Effects on the Murine Ocular Lens In-Vitro." 1980 MTT-S International Microwave Symposium Digest 80.1 (1980 [MWSYM]): 341-344.

Rat ocular lenses were studied by scanning electron microscopy (SEM) following exposures to elevated temperatures and/or microwave irradiation in a thermostatically controlled chamber. In this way, the temperature of the lens bathing medium was set independently of the temperature increase normally associated with application of microwave power. Irradiations were done at three final temperatures and three specific absorption ratios (SAR) for two durations. These were accomplished at 915 MHz in WR975 waveguide with either pulsed (Pu) or continuous wave (CW) radiation of equal average power. The parameters of the (Pu) radiation were selected to maximize the production of thermoacoustic expansion.

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