

Analysis of lineshape of black *drosophila melanogaster* EPR spectra

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Melanin extracted from *Drosophila melanogaster* was examined by an X-band electron paramagnetic resonance (EPR) spectrometer. Unsymmetrical EPR spectra are measured for this biopolymer. Lineshapes of EPR spectra recorded at 125 K and 275 K were analysed. Influence of microwave power in the range 8-200 mW on asymmetry of spectra was tested. The performed analysis confirmed existence of two types of paramagnetic centers in melanin from *Drosophila melanogaster*. Effect of microwave power on amplitude and linewidth of the melanin's EPR spectrum at 125, 200, and 275 K were compared. Fastening of spin-lattice relaxation processes in melanin for higher temperatures was observed.