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The EPR examination of free radicals formation in thermally sterilized β -lactam antibiotics

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EPR examination of free radicals formed in β -lactam antibiotics sterilized at different temperatures was performed. Asymmetrical EPR lines were measured for the studied heated drugs. Properties and free radical concentration in the heated antibiotics changed during storage after thermal treatment. Effect of microwave power on the spectra was analysed. Optimal conditions of thermal sterilization of ampicillin, crystal penicillin, and piperacillin were determined.