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# **BIOLOGY**

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**ABSTRACTS**

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### III.17 STUDY OF FLAVOCON® PROTECTIVE ACTION ON COLLAGEN EXPOSED TO UV RADIATION

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Preparations based on taxifolin, a bioflavonoid, are widely used as components of biologically active food additives, they are also used in pharmacology and cosmetology as powerful antioxidants and agents protecting against the effects of a variety of ambient environment factors. We used the differential scanning microcalorimetry method to study **Flavocon**® (taxifolin) protective action on collagen exposed to UV radiation.

Exposure of collagen solutions to UV radiation even at the minimum dose level used in our analysis (for 30 sec) results in the high temperature transition's disappearing completely from the thermogram (the excess of heat capacity curve), which means that fibrils, supramolecular collagen structures, are the first to suffer from the UV destructive action whereas relatively high (0.05% and higher) concentrations of **Flavocon**® added to collagen solutions can stabilize fibrils to such an extent that they will retain their thermotropic properties even when exposed to UV radiation for as long as 5 min.

The nature of collagen fibril stabilization caused by relatively high **Flavocon**® concentrations has been examined in detail and the question has been addressed of whether the said changes are good for the tissues of the living organism as a whole.