

The effect of UV-radiation and ozone on humus substances

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The influence of the UV-A + visible radiation and ozon on the degradation of soil/aquatic biopolymers-humus substances (HS) was studied. Aqueous or D₂O 0.001-0.01% solutions and solid samples of HS were irradiated or exposed to 0.027 ppm of O₃ and assayed by means of chemiluminescence, UV + visible spectrophotometry and EPR spectroscopy. It was found that HS in solutions undergo degradation while dry samples of HS are relatively resistant to the action of radiation or ozon. Possible mechanism of the oxidative degradation of HS and the ecological role of this process are considered.