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ELION TECHNIQUES FOR BIOLOGICAL AND NONBIOLOGICAL MATERIALS MODIFICATION IN THE CONTINOUS AND ULTRAFAST COHERENT SOURCES ERA

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Abstract

Modern material modifications using elion techniques, with an emphasis on stimulated radiationin UV/VIS. IR spectra incorporate vast number of activities. One direction of the development of these effects is of special interest in the biological sphere, where Elion techniques are used in modulation tasks, and in the strict modern metrology approach for the quantification of the sample changes. The headlines are long time present for wheat fields (Laser goes to field). In parallel experiments with nuclear radiation and spontaneous radiation sources were conducted (electromagnetic X and gamma rays, and proton, neutron particles, nuclear isotopes) are shown in macroscopic statistical results. Novelty in this field is the introduction of hyperfast processes and their influence on plant seeds, beeing sown, where the changes are monitored in shorterm and longterms intervals. The paper will analyse results obtained at present time with irradiation by some of the groups of Elion techiques, characteristic trends and results. In particular, the qualitative and quantitative monitoring of the author's selected experiments will be analyzed, simulated and depicted. During the analysis, attention will be focused to vastly spread plant species, and medicinal herbs, where it is especially important to increase the amount of medicinal substances by means of elion techniques, but also on planned malformations.

Keywords: materials, laser, Elion techniques.