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Modification of microparticles due to intense laser radiation[1] DIETMAR BLOCK, FRANK WIEBEN, University Kiel, Germany, JAN SCHABLINSKI, University Kiel — Recent experiments have demonstrated that it is possible to build an optical tweezer for dusty plasmas. It allows to trap and manipulate single particles from a 2-d plasma crystal. However, as soon as a particle is trapped it is exposed to intense laser radiation. To investigate the influence of intense laser radiation on the particle, the trapping and detrapping processes are studied with high spatial and temporal resolution. Our measurements show, that the trapped particle properties are different and that this change is reversible once the particle is detrapped.

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