

## **Solvent-induced track sensitization. Role of amines**

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A necessary condition for etching of particle tracks in polymers is the selective removal of molecular fragments formed along the ion path. Until recently it was assumed that solvent induced track sensitization by N,N-dimethylformamide (DMF) in poly(ethyleneterephthalate) (PET) removes oligomers from the track core exclusively via a dissolution process. The present study shows that degradation products of DMF, in particular amines, are also involved in the sensitization process. For this purpose, the chemical interaction of amines with heavy ion irradiated PET was examined by various techniques. It was shown that amines induce a selective track "pre-etching". Compared with pure DMF, the track etching rate increases with amine concentration.