

化学

核径迹二甲基甲酰胺溶液敏化特性、机理及新现象研究

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摘要 实验研究了二甲基甲酰胺溶液敏化剂对PET材料中核径迹蚀刻特性改变的规律, 描述了实验中观察到的新现象, 并初步分析了敏化作用机理。

关键词 [二甲基甲酰胺溶液](#); [敏化](#); [核径迹](#)

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New Phenomenon and Dimethyl Formamide Treatment Effect in Polymer Irradiated With Heavy Ions

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Abstract The dimethyl formamide (DMF) treatment effect in PET irradiated with $142 \text{ MeV } ^3\text{S}$ was investigated. It is found that the change of track etching rate with changing the time and temperature of DMF treatment, with changing the time dipping in water before etching and changing the time stored in air after DMF treatment. New phenomenon observed in polymer dipped in water for more than 10 min between DMF treatment and etching process is also described in the paper.

Key words [dimethyl formamide](#) [solvent](#) [sensibilization](#) [nuclear track](#)

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