

**SYNTHESIS OF FLUORINATED DIOLS FROM ADDITION OF FLUORINATED
THIOLS ONTO HYDROXY TELECHELIC POLY(BUTADIENES) (PBHT)**

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The grafting of fluorinated thiols $R_F-C_2H_4SH$ (with $R_F = C_6F_{13}$ or C_8F_{17}) onto hydroxy telechelic polybutadienes (PBHT) (Nippon Soda or Ato) was studied by photochemical and radicalar ways. The thiol was added by telomerization first on the lateral double bonds (1,2) and then on intramolecular ones (1,4). The fluorine content and the proton NMR allow to determine the grafting rate of the different standards of grafted PBHT. An analytical study was performed (refractive index, T_g and viscosity). We prepared fluorinated diols which exhibit a fluorine content reaching 59.2% (that corresponds to a rate of grafting 100%). Furthermore, the microstructure of PBHT on the grafting of the fluorinated thiols were studied.