2) the glass transition temperature T_c of the polymer produced under different curing conditions varies considerably (in this case, almost by 50 K), which allows the use of the method of thermally stimulated luminescence as a rapid method when developing the polymer production technology;

3) the glass transition temperature T_c of the polymer decreases when its base is doped with dye molecules (up to 70 K in this case), and as the concentration of the latter grows, it continues to decrease.

4. Conclusion

With no regard to the issues related to the mechanism of excitation of thermally stimulated luminescence in undyed and dyed epoxy polymers after exposure to UV radiation, it should be noted that the method of thermally stimulated luminescence in its sensitivity is significantly superior to optical absorption techniques, electron paramagnetic resonance and other spectroscopic methods. It is sufficiently simple, reliable and does not require expensive equipment.

In our opinion, further investigation of the method with other types of polymers will provide engineers with a simple method to control the production technology of polymer materials with desired properties.

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