

WHICH WAYS FOR IMPROVING THE REACTIVITY OF PHOTOINITIATING SYSTEMS?

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Conventional Type I and Type II photoinitiators are used in photopolymerization area since more than 30 years. However, these systems faced two different problems: 1/ Type I photoinitiators are reaching a maximum of reactivity with compounds such as phosphine oxide and Type II photoinitiators suffers from the decreased reactivity induced by the need of diffusion process.

In this paper, we investigate different ways to increase the reactivity of Type I or Type II photoinitiators by introducing latent reactive additives [1-], promoting photosensitization [2], pre-associating ion-pairs [3], ... It is shown that high photopolymerization rates can be achieved even at very low light irradiances.

References

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