

含氮杂环化合物的固相光化学

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摘要 本文研究了含氮杂环化合物同尿嘧啶醛、芳香醛酮、稠环化合物的固相光化学反应,得到与液相光化学反应不同的结果。合成了十九种新化合物,它们的结构由IR, ^1H NMR, MS和元素分析确定。用光谱方法表征了混晶的性质。X射线粉末衍射和差热分析表明,吲哚同萘,咪唑同蒽的混晶,形成了分子化合物。对反应机理进行了初步探讨。

关键词 [光化学](#) [混晶](#) [杂环化合物](#) [固相](#) [含氮有机化合物](#) [芳香族醛](#)

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Solid state photochemistry of nitrogenous heteraromatic compounds

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Abstract Photochemical reaction of nitrogenous heteraromatic compounds with uracil aldehyde, aromatic aldehydes and ketones, fused polycyclic aromatic hydrocarbons in solid state were investigated and were distinct from that solution. The structures of 19 new compounds synthesized were determined by IR, ^1H NMR, MS and elemental analysis. These mixed crystals have been characterized by the powder X-ray diffraction spectra and differential scanning calorimetry curve. The mixed crystals of indole with naphthalene and carbazole with anthracene were found to form molecular compounds. The reaction mechanism was postulated.

Key words [PHOTOCHEMISTRY](#) [MIXED CRYSTALS](#) [HETEROCYCLIC COMPOUNDS](#) [SOLID PHASES](#) [NITROGEN-CONTAINING ORGANIC COMPOUNDS](#) [AROMATIC ALDEHYDE](#)

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