

## Synthesis of New Fluorophores Derived from Pyranylidene malonitrile

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In an effort to develop new fluorescent agents for organic light emitting display, DPM was used as a key intermediate in our laboratory. In this study, new fluorophores were synthesized by the reaction of DPM with various amines. When DPM and piperidine (a secondary amine) was reacted in the presence of acid catalyst, 1,6-addition was proceeded to result OPM as main product with other fluorescent adducts. Meanwhile, the reaction of DPM with a primary amine gave dehydro-cyclization product (ADP) as major product. Photoluminescence of these products in solution shows strong or moderate fluorescent emission in the blue region (~400 nm). The dependence of fluorophores derived from DPM on the reagents (primary, secondary amines) and the reaction conditions suggested us that DPM and derived fluorophores can be useful probes for the biomolecules containing amino functionality.

