**Visible-Light-Mediated Solvent-Switched Photosensitizer-Free**

**Synthesis of Polyfunctionalized Quinolines and Pyridines**

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**Abstract**

A solvent (2,2,2-trifluoroethanol (TFE) vs ethyl alcohol (EtOH)) switched synthesis of quinolines and pyridines is illustrated from (*E*)-2-(1,3-diphenylallylidene)malononitriles via a Pd(II)-catalyzed photochemical process. The active catalyst [L2Pd(0)] generated serves as an exogenous photosensitizer. The process offers predominantly *Z*-alkenylated quinolines and pyridines in TFE and EtOH, respectively. Furthermore, large-scale synthesis and a few interesting post-synthetic modifications have been demonstrated.

**Keywords:** solvent-selective attack at one -CN, exogenous photosensitizer free, Pd(II)-catalyzed C-N bond formation under visible-light



**Reference:**

1. Dhara, H. N.; Rakshit, A.; Alam, T.; Sahoo, A. K.; Patel, B. K. *Org. Lett.* **2023**, *25*, 471−476.