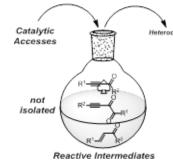
Diversity Oriented Synthesis of Functional Dyes Initiated by Pd- and Cu-Catalysis

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Multi-component and domino reactions are efficient and effective methods in rapid diversity-oriented syntheses of heterocycles. In particular, transition metal catalyzed multi-component sequences have recently gained a considerable interest. Based upon transition metal catalyzed entries to ynones, diynones, and enones and sequentially Pd-catalyzed processes we have opened new avenues to one-pot syntheses of numerous classes of heterocyclic frameworks. Among functional p-electron systems selected luminescent heterocycles are readily accessible by these methodologies in a modular fashion. They display peculiar photophysical properties, such aggregation induced emission, pronounced emission solvochromicity, and photoinduced charge separation in DSSC.

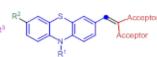




blue emitters)



halochromic emitters)



phenothiazinyl merocyanines (emitters and DSSC dyes)

indolones (aggregation induced fluorescence)