Building blocks for the synthesis of oligopyrroles and indolo analogues

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Pyrrole and its oligomeric derivatives have played important roles in bio-imaging and drug discovery. However,their potential is limited by the poor accessibility of the target compound. We have developed a method to synthesize *N*,*N*-dimethylamino-methylated pyrroles and indoles in good to excellent yields with good tolerance of functional groups. Dimethylaminomethyl pyrroles and indoles are useful building blocks for the synthesis of anti-cancer drugs. Furthermore, the application of these intermediates was investigated in the formation of dipyrromethane and analogues thereof, which are precursors of various porphyrinoids and BODIPY dyes.