

THE SYNTHESIS OF NEW SPIROLACTONES FROM SUBSTITUTED ISATINS

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Abstract. Interaction of *N*-ethyl isatin **3** with dimethyl acetylenedicarboxylate in the presence triphenylphosphine has led to good selectivity of methyl 1'-ethyl-4-methoxy-2',5'-dioxo-5*H*-spiro[furan-2,3'-indoline]-3-carboxylate **4** formation. Similar yields of *spiro*lactones **6,8** were obtained by addition of dimethyl acetylenedicarboxylate to 5-bromo functionalized isatins **5,7**. However, reaction of *N*-butyl isatin **9** resulted in formation of an inseparable mixture of compounds. Treatment of *N*-benzyl isatin **10** and dimethyl acetylenedicarboxylate with triphenylphosphine proceeded with reduced selectivity of the spirooxindole **11** formation.

Keywords: spiro lactones, isatins, triphenylphosphine, dimethyl acetylenedicarboxylate.

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