

# Synthesis of Substituted Tryptanthrins via Oxidation of Isatin and Its Derivatives

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**Abstract**—Oxidation of isatin and its 5-substituted analogs with potassium permanganate in anhydrous acetonitrile gave indolo[2,1-*b*]quinazoline-6,12-dione (tryptanthrin) and its 2,8-dimethyl-, 2,8-dibromo-, and 2,8-diiodo derivatives. Oxidative coupling of 5,7-dichloroisatin with isatin under analogous conditions afforded 2,4-dichloroindolo[2,1-*b*]quinazoline-6,12-dione, while 1,4-dichloroindolo[2,1-*b*]quinazoline-6,12-dione and 1,4-dichloro-8-methylindolo[2,1-*b*]quinazoline-6,12-dione were obtained by oxidative coupling of 4,7-dichloroisatin with isatin and 5-methylisatin, respectively.

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