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An environmentally benign protocol for the synthesis of quinoxaline derivatives under ultrasound irradiation

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In continuation of our efforts to develop green synthetic routes for the formation of biologically active quinoxalines, we report oxidative cyclization of *o*-phenylenediamine and α -bromo ketones. The efficacy of this reaction is illustrated by the compatibility with chloro, bromo, nitro, methoxy, furyl, *etc.* groups. All the new compounds have been characterized by IR, NMR and elemental analysis. The foremost feature of this methodology is environmentally benign reaction, simple work-up, mild reaction conditions and less reaction time.

Keywords: Quinoxaline, Oxidative cyclization, Environmentally benign, Ultrasound