

# Diastereoselective synthesis of new spirocompounds

Joseane A. Mendes (PG)<sup>1</sup>, Paulo R. R. Costa(PQ)<sup>2</sup>, Francisco Foubelo(PQ)<sup>3</sup>, Miguel Yus(PQ)<sup>3</sup>, Camilla D. Buarque Muller (PQ)<sup>1\*</sup>

1) Department of Chemistry, Pontifical Catholic University of Rio de Janeiro Puc-Rio, CEP 22435-900, Brazil.

2) Laboratory of Bioorganic, Chemistry Nucleus of Research of Natural, Products Health Sciences Center, Federal University of Rio de Janeiro UFRJ, CEP 21941-590, Brazil.

3) Department of Organic Chemistry, Faculty of Sciences and Institute of Organic Synthesis, Alicante University, Apdo 99, 03080, Spain.

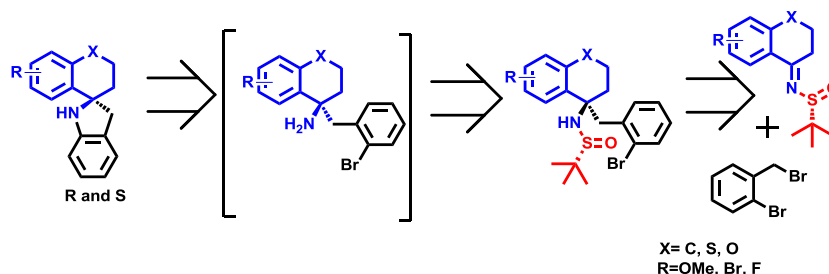
\*e-mail: [camilla-buarque@puc-rio.br](mailto:camilla-buarque@puc-rio.br)

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## ABSTRACT

The Buchwald amination is a very important reaction to prepare biologically compounds, such as indole carboline ring systems<sup>1</sup>. As part of a program aiming the discovery of new compounds with antineoplastic properties<sup>2</sup>, we have prepared new spirocompounds in a diastereoselective manner<sup>3</sup> by addition of an organomagnesium compound to chiral *tert*-butanesulfinyl imines, followed by intramolecular cyclization. All (RS) or (SS)-sulfinyl imines were obtained from commercial tetralones and chiral sulfinil amines employing titanium tetroxide under microwave<sup>4</sup>. The cristaline structure obtained by X-ray showed the stereochemistry of the chiral center after the nucleophilic addition<sup>5</sup>. All enantiomers of spirocompounds were obtained after the removal of the chiral auxiliary in acid conditions, followed by intramolecular C-N bond catalyzed by palladium acetate in toluene in a pressure tube in good yields<sup>6</sup>.

## GRAPHICAL ABSTRACT



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