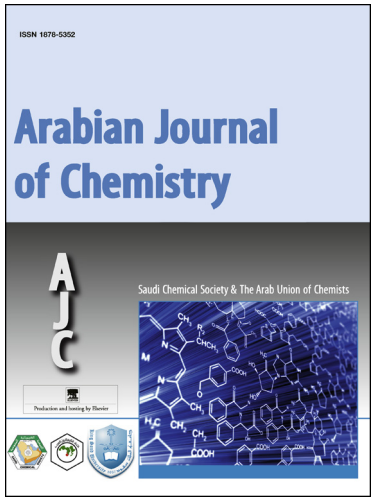

Original article

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Organic Synthesis of Phenylation of aminoindazole derivatives

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Abstract

The triphenylbismuth diacetate reacted selectively with different aminoindazole derivatives in presence of copper diacetate to engender a new series of mono phenyl aminoindazole compounds in good to high yields. Moreover, the same reagent with 4-chloro-2-methyl-2H-indazol-7-amine led to a mixture of mono- and N, N- diphenylaminoindazoles. However, its combination with 2H-indazol-4-amine provided only one N,1-diphenylaminoindazole compound.

Keywords:

Aminoindazole; Triphenylbismuth diacetate ; Copper diacetate ; Phenylaminoindazole, Diphenylaminoindazole.

1. Introduction

Heterocycles constitute a family of substances particularly important in organic chemistry because of their presence in a large number of natural and synthetic molecules with varied useful properties. They play a major role in many areas of medicine, biology, agronomy, cosmetology, and are endowed with diverse pharmaceutical activities (anti-parasitic, anti-fungal, anti-inflammatory, psychotropic) (Yang, X and al., **2004**; Boyer, G and al., **2000**; Barton, D.H.R. and al., **1987**; Pinhey, J.T. and al. **1980**). . Indeed, many heterocyclic indazole

therapeutic effects are reported in the literature. For example, the compound YC-1 (fig.-1) is an activator of the soluble enzyme guanylyl cyclase (Schumann and al., **2001**; Sopkova-De Oliveria-Santos and al., **2000**), whereas Rimonabant (fig.-2) is an anorectic antiobesity drug that reduces bodyweight and improves cardiovascular and metabolic risk factors in non-diabetic overweight or obese patients (Scheen et al., **2006**) .
On the other hand, the N-aryl hetero aromatic molecules are interesting in stereo selective synthesis and challenging because they reveal new pathways to obtain pharmaceutical and agrochemical compounds. In the past few years, considerable importance has been attached to synthetic methods leading to indazole derivatives because of their biological properties (Caron, S., and al., **1999**; Yeu, J.-P., and al., **2001**; Sun, J.-H., and al., **1997**; Rodgers, J. D.,