#### Iranian Journal of Organic Chemistry

IranJOC Vol. 2, No. 3, 2010

#### **Contents**

#### **Graphical Abstracts**

New synthesis of 2,4-diamino-10-(4-bromo-phenylamino)-10H-9-oxa-1-aza-anthracene-3-carbonitrile, 2,4-diamino-10-p-tolylamino-10H-9-oxa-1-anthracec-3-carbonitrile and 2-(2-amino-3-cyano-4H-chromen-4-yl)-malononitrile

pp 413-416

Mazarbanou Asnaashari Isfahani\* and Maede Bayat

Department of Chemistry, Islamic Azad University, North Tehran Branch, Tehran, Iran.

$$Ar = -CH_3$$
,  $-Br$ 

Directed efficient and rapid bromination of phenols and anilines with N- pp 417-422 bromosaccharin using tungstophosphoric acid as a heterogeneous recyclable catalyst under solvent-free conditions

Heshmatollah Alinezhad\* and Sahar Mohseni Tavakkoli Faculty of Chemistry, Mazandaran University, Babolsar, Iran.

Solvent free solid support synthesis of arylmethylene *bis*(3-hydroxy-2-cyclohexene-1- pp 423-429 ones) and xanthenediones derivatives by microwave irradiation

Mithu Saha and Amarta Kumar Pal\*

Department of Chemistry, North Eastern Hill University, Shillong 793022, India.

#### SbCl<sub>5</sub>-SiO<sub>2</sub>: an efficient reagent system for regio- chemo- and stereoselective claisen- pp 431-435 schmidt condensation

Bahareh Sadeghi\* and Mohammad Baradaran

Department of Chemistry, Islamic Azad University, Yazd Branch, P.O. Box &195-155, Yazd, Iran,

### AIM analysis for assignment of the two *Z*- and *E*-isomers in phosphorane containing pp 437-444 a dimedon-1-yl

Nilofar Akbarzadeh, <sup>a</sup> Alireza Rezvani, <sup>a</sup> Sayyed Mostafa Habibi Khorassani, <sup>a\*</sup> Majid Moradian <sup>b</sup> and Zahra Ghahghayi <sup>a</sup>

<sup>a</sup>Department of Chemistry, The University of Sistan and Baluchestan, P.O. Box 98135-674, Zahedan, Iran.

<sup>b</sup>Department of Chemistry, Islamic Azad University, Ghaemshahr Branch, Iran.

$$\begin{array}{c}
Me \\
Me \\
OH \\
OOH \\
OO$$

# Identification and removal of amine, cyanide and aldehyde compounds in cigarette smoke via extracted plant's micro silica by gas chromatography – mass spectroscopy (GC/MS) method

Majid Moradian, a\* Farhad Naghizadeh and gholamreza Moradi Robati b

<sup>a</sup>Department of Chemistry, Islamic Azad University, Qaemshahr branch, Iran

<sup>b</sup>Chemistry Department, Tirtash Tobacco Research and Education Center, Behshahr, Iran

Silica is a compound found in some plants and one of the most important materials in chemical industrial and adsorption processes. In this study, micro silica was extracted from *Equisetum arvense* in North of Iran and purified from *Equisetum arvense* plant ash. SEM measurements determined a particle size of micro silica of 1 -1.5 micrometer. The absorbed compounds were extracted by pure methanol and analyzed by GC/MS, using NIST and WILLY229 libraries for identification.

### Electrochemical investigation of *p*-chloranil as an organic mediator in determination pp 451-459 of dopamine using of multiwall carbon nanotubes paste electrode

Vahid Nasiri, Hassan Karimi-Maleh, Mohammad A. Khalilzadeh\* and Daryoush Zareyee *Department of Chemistry, Islamic Azad University, Qaemshahr Branch, Iran.* 

In this work, we study electrochemical behavior of *p*-chloranil as a suitable mediator for voltammetric determination of dopamine (DA) using voltammetric method. Using the modified electrode, the kinetics of DA electrooxidation was considerably enhanced by lowering the anodic over potential through a catalytic fashion. The differential voltammetric peak currents of the electrode increased linearly with the corresponding DA concentration in the range of 0.5-115 µmol L-1 with a detection limit of 0.2 µmol L-1. The influence of pH and potential interfering substances on the determination of DA were studied. The RSD% for 5 replicate s determination of 100 µmol L -1 of DA were 1.5%. Finally, the sensor was examined as a selective, simple, and precise new electrochemical sensor for the determination of DA in real samples, such as drug and urine, with satisfactory results.

### Synthesis and characterization of a novel derivative of azo calix [4]-arenes as a new pp 461-464 potential for analgesic and antibacterial drug

Saeed Taghvaei-Ganjali,\* Sahar Dezfooli, Reza Zadmard

<sup>a</sup>Department of Chemistry, Islamic Azad University, North Tehran Branch, P.O.Box: 15875-5981, Tehran, Iran.

<sup>b</sup>Chemistry and Chemical Engineering research center of Iran, P.O.Box: 14335-186, Tehran, Iran.

## Selective Iron (II) colorimetric sensor based on hydroxamic acid-functionalized gold pp 465-472 nanoparticles

Soroor Sadeghi\* and Changiz Karami

Islamic Azad University of Kermanshah, Department of Chemistry, Kermanshah 6718997551, Iran

411