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Silica supported perchloric acid (HClO₄–SiO₂): an efficient reagent for the preparation of primary pp 8723–8726 carbamates under solvent-free conditions

Ali Reza Modarresi-Alam,* Ferydoon Khamooshi, Mahmoud Nasrollahzadeh and Homeyra Alsadat Amirazizi



The synthesis of primary carbamates from structurally diverse compounds containing a hydroxyl group has been performed in high yields and purity, and without any epimerization under solvent-free conditions using $HCIO_4$ –SiO₂ as a mild, convenient, and effective reagent. The procedure is operationally simple, efficient, and environmentally benign.

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Vorawit Banphavichit, Worawan Bhanthumnavin and Tirayut Vilaivan*



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P = protective groups.

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(*N*-7-Azaindolyl)oligothiophenes: synthesis, characterization, and photophysical properties Jin Seok Hong, Hyung Sup Shim, Tae-Jeong Kim^{*} and Youngjin Kang^{*}



A new series of mono- and oligothiophenes capped by 7-azaindoles such as 2-(*N*-azaindolyl)thiophene (1), 2-(*N*-azaindolyl)-5'-(bromo)oligothiophenes (**2a-4a**), and 2,5'-bis(*N*-azaindolyl)oligothiophenes (**2b-4b**) have been prepared and characterized. The crystal structures of **2b**, **3b**, and **4b** have been determined by single-crystal X-ray diffractions. The thermal, photophysical, and electrochemical properties of all new compounds have been measured.

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(+) + (+)

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Hajime Nagano,* Rie Kuwahara and Fumika Yokoyama



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Perumal Rajakumar* and Subramaniyan Selvam



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Cosme G. Francisco, Raimundo Freire, Antonio J. Herrera, Inés Pérez-Martín and Ernesto Suárez*

 $\begin{array}{c} \mathsf{RO} \\ \mathsf{HO} \\ \mathsf{RO}_2 \\ \mathsf{RO}_2 \\ \mathsf{R}^1 \end{array} \xrightarrow{\mathsf{DIB}} \begin{array}{c} \mathsf{RO} \\ \mathsf{I}_2 \\ \mathsf{RO}_2 \\ \mathsf{R}^1 \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \mathsf{RO}_2 \\ \mathsf{RO}_2 \\ \mathsf{R}^1 \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \mathsf{RO}_2 \\ \mathsf{RO}_2 \\ \mathsf{RO}_2 \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \mathsf{RO}_2 \\ \mathsf{RO}_2 \\ \mathsf{RO}_2 \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \mathsf{RO}_2 \\ \mathsf{RO}_2 \\ \mathsf{RO}_2 \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \mathsf{RO}_2 \\ \mathsf{RO}_2 \\ \mathsf{RO}_2 \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \mathsf{RO}_2 \\ \mathsf{RO}_2 \\ \mathsf{RO}_2 \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \mathsf{RO}_2 \\ \mathsf{RO}_2 \\ \mathsf{RO}_2 \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \mathsf{RO}_2 \\ \mathsf{RO}_2 \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \mathsf{RO}_2 \\ \mathsf{RO}_2 \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \mathsf{RO} \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \xrightarrow{\mathsf{RO}} \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \xrightarrow{\mathsf{RO}} \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \end{array} \xrightarrow{\mathsf{RO}} \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \end{array} \xrightarrow{\mathsf{RO}} \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \end{array} \xrightarrow{\mathsf{RO}} \end{array} \xrightarrow{\mathsf{RO}} \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \end{array} \xrightarrow{\mathsf{RO}} \end{array} \xrightarrow{\mathsf{RO}} \end{array} \xrightarrow{\mathsf{RO}} \end{array} \xrightarrow{\mathsf{RO}} \begin{array}{c} \mathsf{RO} \\ \end{array} \xrightarrow{\mathsf{RO}} \end{array} \xrightarrow{\mathsf{RO}} \end{array} \xrightarrow{\mathsf{RO}} \end{array}$

R¹ = O-alkyl, O-acyl, H

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Lewis acid promoted Mannich type reactions of α, α -dichloro aldimines with potassium organotrifluoroborates

Sara Stas and Kourosch Abbaspour Tehrani*



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Masatoshi Matsushita, T. Tomoyoshi Takahashi,* Takamitsu Utsukihara, Yohei Shimizu, Rob J. Jansen and C. Akira Horiuchi*



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Pilar Basabe,* Sergio Delgado, Isidro S. Marcos, David Diez, Alberto Diego, Mónica de Román, Francisca Sanz and J. G. Urones



Formation of dihydrouracils via cyclization of *N*-substituted 3-thioureidopropanoic acids and facile pp 8949–8953 desulfurization

Carina M. L. Delpiccolo, Fernando Albericio,* Robert A. Schiksnis and Enrique L. Michelotti*



Cyclization of *N*-3 substituted 3-thioureidopropanoic acids in isobutyric anhydride at high temperature resulted in the unexpected formation of *N*-3,*N*-1-substituted dihydrouracils, as confirmed by thorough spectroscopic characterization. A mechanism based on the identification of intermediates observed at lower reaction temperatures is proposed.



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Kristof T. J. Loones, Bert U. W. Maes* and Roger A. Dommisse



Converting 9-methyldipyrrinones to 9-H and 9-CHO dipyrrinones

Stefan E. Boiadjiev and David A. Lightner*



9-Methyldipyrrinones can be cycled through biliverdinoids and converted into 9-H and 9-CHO dipyrrinones by cleavage with thiobarbituric acid as well as other carbon acids, new reaction conditions, and a reverse Knövenagel reaction.

Development of a novel nucleoside analogue with S-type sugar conformation: 2'-deoxy-*trans*-3',4'- pp 8977–8986 bridged nucleic acids

Tomohisa Osaki, Satoshi Obika, Yasuki Harada, Yasunori Mitsuoka, Kensaku Sugaya, Mitsuaki Sekiguchi, Somjing Roongjang and Takeshi Imanishi*



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Ming-Jin Fan, Bo Qian, Lian-Biao Zhao and Yong-Min Liang*

$$Cy-NC + R_1 + R_2 + R_2 + R_3 \xrightarrow{\text{piperidine}}_{R_3 \text{ toluene}} + R_2 + R_3 \xrightarrow{\text{piperidine}}_{R_3 \text{ toluene}} + R_2 + R_2 \xrightarrow{\text{piperidine}}_{R_2 + R_2} + R_3 \xrightarrow{\text{piperidine}}_{R_2 + R_2} +$$

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Intramolecular and intermolecular Schmidt reactions of alkyl azides with aldehydes Huey-Lih Lee and Jeffrey Aubé* pp 9007-9015



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Junzo Nokami,* Kazuho Maruoka, Taichi Souda and Nobuo Tanaka



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Corrigendum Calendar

*Corresponding author ()⁺ Supplementary data available via ScienceDirect

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