

This article was downloaded by:

On: 27 January 2011

Access details: *Access Details: Free Access*

Publisher *Taylor & Francis*

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Nucleosides, Nucleotides and Nucleic Acids

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713597286>

Synthesis of Imidazo[1, 2-a]pyrazine Nucleoside Analogues

P. Verschave^a; G. Hoornaert^a

^a Dept. of Chemistry, Leuven (Heverlee), Belgium

To cite this Article Verschave, P. and Hoornaert, G.(1985) 'Synthesis of Imidazo[1, 2-a]pyrazine Nucleoside Analogues', *Nucleosides, Nucleotides and Nucleic Acids*, 4: 1, 231 — 232

To link to this Article: DOI: 10.1080/07328318508077865

URL: <http://dx.doi.org/10.1080/07328318508077865>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.informaworld.com/terms-and-conditions-of-access.pdf>

This article may be used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

P. Verschave, G. Hoornaert^{*}

SUMMARY - A synthesis of imidazo[1,2-a]pyrazine nucleoside analogues is described.

While the condensation of a ribosylated α -haloaldehyde with a 3-amino-2(1H)-pyrazinon failed, a multistep synthesis via the α -amino-alcohol 2 was succesful and yielded 6.

$$\text{Ri-CHOHCH}_2\text{NO}_2 \xrightarrow{\text{1 (ref. 2)}} \text{Ri-CHOHCH}_2\text{NH}_2 + \text{2} \xrightarrow{\text{3}} \text{4} \quad \text{R}^1 = \text{o-NO}_2\text{C}_6\text{H}_4\text{CH}_2^-$$

$$\text{5} \xrightarrow[\text{Me}_2\text{S}]{\text{1. NCS}} \text{6} \xrightarrow[\text{(CF}_3\text{CO)}_2\text{O}]{\text{CF}_3\text{COOH}} \text{7a} \xrightarrow{h\nu} \text{7b} \rightarrow \text{7c}$$

$$\text{Ri} = 2', 3', 5', \text{-tri-O-benzoyl-}\beta, \text{D-ribofuranosyl}$$

$$\text{Ri}' = \beta, \text{D-ribofuranosyl}$$

<u>7</u>	R^2	R^3
a	Cl	Ri
b	Cl	Ri'
c	H	Ri'

SCHEME 1

REFERENCES

1. J. Vekemans, C. Pollers-Wieërs, G. Hoornaert, J. Heterocycl.Chem., 20, 919 (1983)
2. J. Deceuninck, D. Buffel, G. Hoornaert, Tetrahedron Lett., 21, 3613 (1980)