

# C-Branched Glycals as Monosaccharidic Push-Pull Butadienes\*

Ivo Rudloff<sup>a,b</sup>, Ahmed Bari<sup>a</sup>, Holger Feist<sup>a</sup>, Manfred Michalik<sup>c</sup>, Helmut Reinke<sup>a</sup>,  
and Klaus Peseke<sup>a</sup>

<sup>a</sup> Fachbereich Chemie, Universität Rostock, Albert-Einstein-Straße 3a, D-18051 Rostock

<sup>b</sup> Oswel/Eurogentec SA, Winchester Hill Commercial Park, Winchester Hill, Romsey, Hampshire,  
SO51 7UT, UK

<sup>c</sup> Leibniz-Institut für Organische Katalyse, Buchbinderstraße 5-6, D-18055 Rostock

Reprint requests to Prof. Dr. K. Peseke. Fax +49(381)4986412.

E-mail: klaus.peseke@chemie.uni-rostock.de

Z. Naturforsch. **59b**, 398 – 405 (2004); received January 8, 2004

*Dedicated to Dr. Eckehard Cuny on the occasion of his 60<sup>th</sup> birthday*

Treatment of 2(3)-formyl-glycals **1**, **3**, **5** with alkyl cyanoacetates afforded 2(3)-[(*E*)-2-cyano-2-alkoxycarbonyl-vinyl]-2(3)-deoxy-1,5(2, 6)-anhydro-hex-1(2)-enitols **2**, **4**, **6** which were reacted with aniline to yield nicotinonitrile acyclo-*C*-nucleosides **7**, **9**. Nicotinic acid ester acylo-*C*-nucleosides **11** were obtained by the reaction of 2,6-anhydro-1,4,5-tri-*O*-benzyl-3-[(*E*)-2-cyano-2-alkoxycarbonyl-vinyl]-3-deoxy-D-*erythro*-hex-2-enitols **6** with ammonia.

*Key words:* C-Nucleoside Analogues, Pyridines, 1,2-Dihydropyridin-2-ones, Nicotinic Acid Esters,  
Nicotinonitrile