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Nucleosides, Nucleotides and Nucleic Acids

Publication details, including instructions for authors and subscription information:

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

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To cite this Article Robillard, B. , Lhomme, M. F. and Lhomme, J.(1985) 'Preparation of Guanosines Modified by Carcinogenic Aromatic Amines', *Nucleosides, Nucleotides and Nucleic Acids*, 4: 1, 213 — 214

To link to this Article: DOI: 10.1080/07328318508077857

URL: <http://dx.doi.org/10.1080/07328318508077857>

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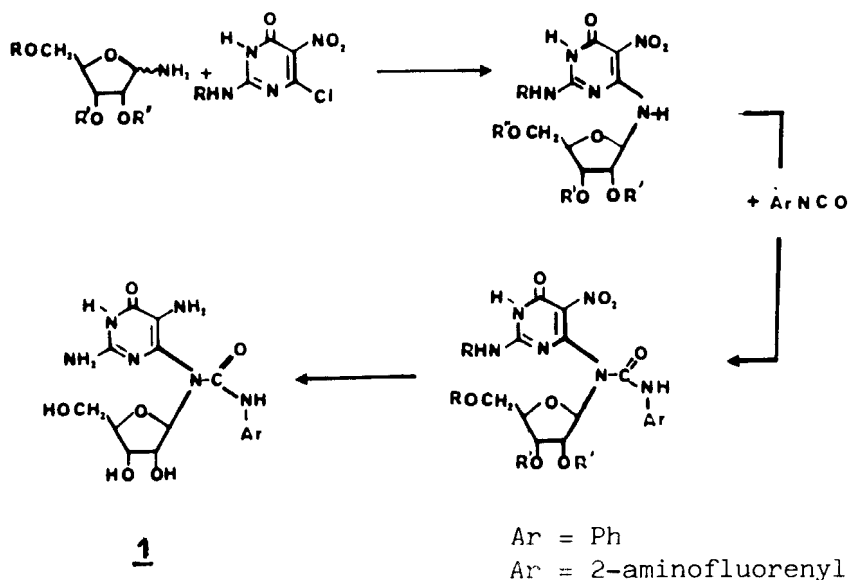
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PREPARATION OF GUANOSINES MODIFIED BY CARCINOGENIC AROMATIC AMINES

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Summary : a general synthetic pathway has been developed to obtain aromatic amine-imidazole ring opened guanosine adducts.

Carcinogenic aromatic amines bind covalently to nucleic acids after metabolic activation into hydroxylamino derivatives. One of the major products obtained both *in vitro* and *in vivo* corresponds to an adduct in which the amino group of the carcinogen is bound to the C-8 position of guanine. More recently pyrimidine-type nucleosides 1 have been identified which could result from ring opening of the imidazole moiety in the latter adduct. This was observed notably in the case of 2-aminofluorene. In order to evaluate the physicochemical as well as the biological properties of this class of new compounds we have developed the general synthetic scheme as indicated :



This route was applied to the model aniline molecule and to the carcinogenic substance 2-aminofluorene.