

Anti-HIV Activity of New Substituted 1,3,4-Oxadiazole Derivatives and their Acyclic Nucleoside Analogues

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Z. Naturforsch. **64c**, 773–778 (2009); received April 27/August 25, 2009

A number of new 5-[(naphthalen-5-yloxy)methyl]-1,3,4-oxadiazole derivatives, **2–5** and **8–11**, were synthesized. The 2-{5-[(naphthalen-5-yloxy)methyl]-1,3,4-oxadiazol-2-ylthio}aceto-hydrazones **6a** and **6b** were synthesized by the reaction of the hydrazide **4** with the corresponding monosaccharides. Cyclization of the sugar hydrazones **6a** and **6b** with acetic anhydride afforded the substituted oxadiazoline derivatives **7a** and **7b**. The synthesized compounds were evaluated for their antiviral activity against, the human immunodeficiency virus (HIV-1) and some of these compounds showed moderate to high antiviral activity.

Key words: Sugar Hydrazones, 1,3,4-Oxadiazoles, Acyclic Nucleosides, Antiviral Activity