

Some publications have reported that the adducts obtained by addition of 1 to Michael acceptors are 5-nitro isomers.¹¹⁻¹⁴ The present paper unequivocally establishes that the product of Michael addition actually is the 4-nitro isomer and not the 5-nitro isomer. Another literature publication¹⁵ reports the formation of the 4-nitro isomer in very low yield (9%) on treatment of 1 with 4a under prolonged reflux in water at a pH of 4.25. By contrast, the

method reported in this paper (DMSO-pyridine) gives an 85% yield.

In conclusion, this work describes the regiospecific synthesis of biologically important N-substituted 4-nitro-1H-imidazoles in near quantitative yields.

Experimental Section

General. Analytical. TLC was performed on silica gel plates with appropriate solvent systems. Melting points were recorded on a Mettler FP 800 ThermoSystem and are uncorrected. ¹H and ¹³C NMR spectra were recorded on a FT-NMR instrument (JEOL FX 60Q), and the mass spectra were obtained on a JEOL DX-300 double-focusing mass spectrometer.

General Procedure. A mixture of 1 (50 mmol), Michael acceptor reagent (4) (70 mmol), and pyridine (0.2 mL) was taken in dry DMSO (20 mL) and heated under nitrogen at 135–140 °C for 10 h. The solvent was removed under vacuum, the residue was taken up in EtOAc and washed with aqueous ammonia, followed by water, and the organic layer was evaporated, to get the crude products (3), which were crystallized from EtOAc. In the case of compound 3c, the residue left after removal of DMSO was triturated with water and directly recrystallized from DMF-H₂O (1:1). The yields of crude products, which were practically pure and homogeneous on TLC, were almost quantitative. The yields of the crystallized products are given in the Table II.

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Registry No. 1, 696-23-1; 2a, 19387-91-8; 2b, 14885-27-9; 3a, 25459-12-5; 3b, 89128-08-5; 3c, 16935-04-9; 3d, 126664-27-5; 3e, 126664-28-6; 4a, 1889-59-4; 4b, 107-13-1; 4c, 79-09-4; 4d, 140-88-5; 4e, 78-94-4.

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Additions and Corrections

Vol. 54, 1989

Hubert Maehr,* Roxana Yang, Li-Na Hong, Chao-Min Liu, Marcos H. Hatada, and Louis J. Todaro. Microbial Products. 9. Roxaticin, a New Oxo Pentaene Antibiotic.

Page 3817. The legend for formulas 1–4 should read as follows:

1	2a	3	4a
Roxaticin	R=Me: Mycoticin A	Roflamycin	R=Me: Dermostatin A
	2b		4b
	R=Et: Mycoticin B		R=Et: Dermostatin B

David StC. Black, Donald C. Craig, Olga Giitsidis, Roger W. Read,* Abdoreza Salek, and Mark A Sefton. Synthesis

of Fused Polyazapocyclic Compounds through Condensation of Diaminoalkanes with Carbonyl Compounds.

Page 4776. The ¹³C NMR data for compounds 1 and 2 in Table V should be interchanged.

Page 4779, column 2, paragraph 1. The space group and other crystallographic data were incorrectly represented and should be replaced by the following:

Crystal data for 5: C₈H₁₄N₆O₈, M 349.39, triclinic, space group P $\bar{1}$, *a* 6.602 (6) Å, *b* 7.341 (2) Å, *c* 8.231 (3) Å, α 89.54 (2)°, β 74.56 (2)°, γ 66.15 (2)°, *V* 349.4 (2) Å³, *D_c* 1.66 g cm⁻³, *Z* 1, μ_{Mo} 1.39 cm⁻¹.

Paragraph 2. The graphite monochromatized molybdenum radiation used was λ 0.7107 Å. Reflexions with $I > 3\sigma(I)$ were considered observed. Reflexion weights used were $1/\sigma^2(F_o)$, with $\sigma(F_o)$ being derived from $\sigma(I_o) = [\sigma^2(I_o) + (0.04I_o)^2]^{1/2}$. The weighted residual is defined as $R_w = (\sum w\Delta^2 / \sum wF_o^2)^{1/2}$.