Figure 2. Proposed structure for the complex. Arrows illustrate intermolecular NOE contacts shown in Figure 1.

in CDCl₃ so its structure was examined in DMSO- d_6 , where rapid exchange exists between free and bound components. Assignments for the signals were made through COSY and TOCSY methods. Fifteen intermolecular NOE's were observed in a ROESY experiment, and the cross-sections for $H_1(H_8)$ and N-CH₂ are shown in Figure 1. The negative peaks observed are labelled in the proposed structure for the complex (Figure 2).

The NOE information points to the following: (i) Base pairing is dominantly Hoogsteen (NOE's from the imide N-H of the receptor are seen to H_8 of the adenines but not to H_2) and (ii) the conformation of nucleotide a is syn (N-CH₂-CO contact to $H_{4'}$ but not to $H_{2'}$) and that of nucleotide b is anti (N-CH₂-CO contact to $H_{2'}$ but not to $H_{4'}$). The data best fit a structure in which most of the driving force for binding is provided by the salt bridge. In less polar solvents, such as CH_2Cl_2 used in the extraction, magnification of hydrogen bonding is expected and both Watson-Crick and Hoogsteen base-pairing are likely.

It is expected that cleft-like structures such as defined here can find use in transporting nucleotides across membranes and may even be suitable to bind to single-stranded nucleic acids. We will report on these developments in due course.

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Supplementary Material Available: 600-MHz ¹H NMR spectra of 1, d(AA), and complex, including an NOE list (9 pages). Ordering information is given on any current masthead page.

Additions and Corrections

Bromination of Imidazoles Coordinated to Cobalt(III). Kinetics and Mechanism of Bromination of RImH³⁺ Systems (R = (NH₃)₅Co), Wheland Intermediates, and Preassociation or Diffusion Control [J. Am. Chem. Soc. 1991, 113, 2656]. ALLAN G. BLACKMAN, DAVID A. BUCKINGHAM,* and CHARLES R. CLARK Page 2657: For "imidazolinium cation" read "imidazolium cation".

Page 2659: Equation 9 should rad

Page 2661, Scheme I: The C-2 addition product equation should read

Page 2662, Table III: The rate (M $^{-1}$ s $^{-1}$) for RIm $^{2+}$ should be 3.6 \times 10 9 , not 3.0 \times 10 9 .

Page 2663, Table IV: The rates $(k_2, M^{-1} s^{-1})$ for the following N-Co(NH₃)₅³⁺ systems should be 1.1 × 10⁸ for 4-BrIm, 2.7 × 10⁸ for 5-BrIm, and 3.6 × 10⁹ for Im.