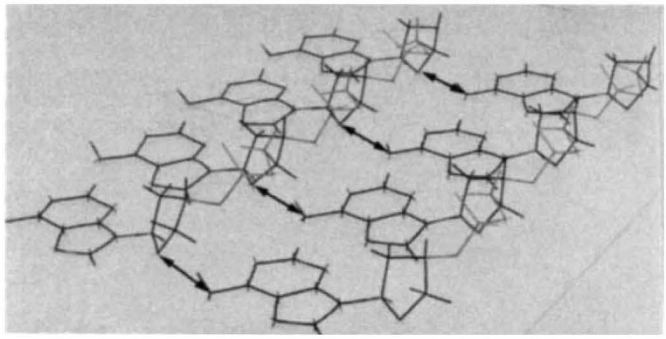

FIG. 4 A molecular model of the adsorption of poly(dA) on graphite. The planar bases lie flat beside the sugar-phosphodiester backbone. Arrows link O'_4 and N_6 atoms of adjacent strands.

strands. The arrangement may be stabilized further by hydrogen bonds between the N_6 and O'_4 atoms of adjacent chains.

These results show that sequencing nucleic acids by direct STM imaging is feasible if three problems can be overcome. First, formation of monolayers of single-stranded DNA with other sequences must be achieved, perhaps by adding chaotropic agents to prevent double-strand formation during deposition. Second, depositions in which the bases are completely accessible must be well controlled. Third, with the present resolution, it is only possible to differentiate purines from pyrimidines. Sequencing will require either increased spatial resolution or the specific labelling of the bases with bulky, identifiable groups. Direct sequencing would require far less material and would be more rapid than is possible at present. □

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1. Binnig, G., Rohrer, H., Gerber, C. & Wiebel, E. *Phys. Rev. Lett.* **49,** 57–60 (1982).
2. Quate, C. F. *Physics Today* **39,** 26–33 (1986).
3. Hansma, P. K., Elings, V. B., Marti, O. & Bracker, C. E. *Science* **242,** 209–216 (1988).
4. Keller, D. J., Bustamante, C. & Keller, R. W. *Proc. natn. Acad. Sci. U.S.A.* **86,** 5356–5360 (1989).
5. Arscott, P. G., Lee, G., Bloomfield, V. A. & Evans, D. F. *Nature* **339,** 484–486 (1989).
6. Lee, G., Arscott, P. G., Bloomfield, V. A. & Evans, D. F. *Science* **244,** 475–477 (1989).
7. Beebe, T. P. Jr *et al. Science* **243,** 370–372 (1989).
8. Lindsay, S. M., Thundat, T., Nagahara, L., Knipping, U. & Rill, R. L. *Science* **244,** 1063–1064 (1989).
9. Amrein, M., Durr, R., Stasiak, A., Gross, H. & Travaglini, G. *Science* **243,** 1708–1711 (1989).
10. Saenger, W. *Principles of Nucleic Acid Structure* (Springer, New York, 1984).
11. Soler, J. M., Baro, A. M., Garcia, N. & Rohrer, H. *Phys. Rev. Lett.* **57,** 444–447 (1986).

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CORRECTION

Phasing of protein-induced DNA bends in a recombination complex

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IT has been brought to our attention that Fig. 4 is the mirror image of what it should be. Addition of the three-phased bends induced by IHF predicts a right-handed solenoidal coil for the path of *att*P DNA, not the left-handed coil shown in Fig. 4.

Topological analyses by Griffith and Nash[1] predict a left-handed solenoidal coil for the recombinogenic complex of Int and IHF. We are currently investigating the basis and implications of this difference. We than Howard Nash for pointing out the reversal of handedness in Fig. 4. □

1. Griffith, J. D. & Nash, H. A. *Proc. natn. Acad. Sci. U.S.A.* **82,** 3124–3128 (1985).