

THE PROTEIN DATA BANK

NEWSLETTER

Number 10

October 1979

This brief newsletter provides up-to-date holdings information (Tables 1-5) and a Request Form. A full Newsletter will be distributed in January, and any of the persons listed below will be happy to answer inquiries.

We would like Japanese users to note that the center of Data Bank activity in Japan has been transferred to the Institute for Protein Research at Osaka University. Professor Masao Kakudo of Osaka has assumed the data distribution functions formerly carried out by Professor Mitsuo Tasumi of the University of Tokyo. We wish to thank Professor Tasumi for all his efforts on behalf of the Bank.

It is expected that the Protein Data Bank be acknowledged in publications which result from work making use of the Bank's services. In citing the Protein Data Bank in print, we suggest that a reference be included to F. C. Bernstein, T. F. Koetzle, G. J. B. Williams, E. F. Meyer, Jr., M. D. Brice, J. R. Rodgers, O. Kennard, T. Shimanouchi, and M. Tasumi, *J. Mol. Biol.* 112, 535-42 (1977). When papers are published describing structures for which coordinates have been deposited, we suggest that this same citation be used and our address also supplied.

<u>Area</u>	<u>Address of Center</u>	<u>Name</u>	<u>Telephone</u>
The Americas	Protein Data Bank	F. C. Bernstein	516-345-4382
	Chemistry Department	T. F. Koetzle	516-345-4384
	Brookhaven National Laboratory Upton, New York 11973 USA	E. Abola	516-345-4382
Europe and Worldwide	University Chemical Laboratory	O. Kennard	0223-66499
	Lensfield Road Cambridge CB2 1EW, England	S. Bellard	
Australia	CSIRO Div. of Chemical Physics P. O. Box 160 Clayton, Victoria 31368 AUSTRALIA	B. J. Poppleton	
Japan	Institute for Protein Research Osaka University 5311, Yamada-Kami, Suita Osaka, Japan	M. Kakudo	(06) 877-5111 ext. 3836

TABLE 1. PROTEIN DATA BANK. INFORMATION AVAILABLE ON MAGNETIC TAPE

11-OCT-79

CODE	ITEM
DATAPRTP	ALL CURRENT COORDINATE ENTRIES AND PROGRAMS (TABLES 3,4)
NONSTDTF	ALL STRUCTURE FACTOR HOLDINGS (TABLE 5)
BENDERTP	PARAMETERS FOR BENT-WIRE MODELS
CONNECTP	CONNECTIVITY SPECIFICATIONS FOR ALL ATOMS
DGPLOTP	DIAGONAL PLOTS (LINE PRINTER)
DSTNCETP	CONNECTIVITY SPECIFICATIONS WITH DISTANCES
FISIPLTP	PHI/PSI PLOTS (LINE PRINTER)
PHIPSITP	LISTS OF PHI/PSI/OMEGA VALUES

* NEW OR REPLACEMENT ENTRY SINCE JUL-79 NEWSLETTER

ITEM DSTNCETP REQUIRES TWO TAPES AT 800CPI. OTHER ITEMS COMPRISE ONE TAPE EACH

TABLE 2. PROTEIN DATA BANK, INFORMATION AVAILABLE ON MICROFICHE

11-OCT-79

CODE	ITEM	NO. OF FICHE	PRICE
DATAPRFI	ALL CURRENT COORDINATE ENTRIES AND PROGRAMS (TABLES 3,4)	12	\$69.96
NONSTDFI	ALL STRUCTURE FACTOR HOLDINGS (TABLE 5)	11	\$68.73
CORR04FI	LIST OF CORRECTIONS NO. 4 (DEC/78-JUL/79)	1	FREE
BENDERFI	PARAMETERS FOR BENT-WIRE MODELS	2	\$57.56
CONNECTFI	CONNECTIVITY SPECIFICATIONS FOR ALL ATOMS	10	\$67.50
DGPLOTFI	DIAGONAL PLOTS (LINE PRINTER)	4	\$68.12
DSTNCFI	CONNECTIVITY SPECIFICATIONS WITH DISTANCES	20	\$73.80
FISIPLFI	PHI/PSI PLOTS (LINE PRINTER)	1	\$56.43
PHIPSIFI	LISTS OF PHI/PSI/OMEGA VALUES	5	\$61.35

* NEW OR REPLACEMENT ENTRY SINCE JUL-79 NEWSLETTER

PRICES QUOTED ARE IN U.S. DOLLARS FOR DISTRIBUTIONS FROM BROOKHAVEN. REQUESTORS FROM OTHER CENTERS SHOULD INQUIRE FOR AVAILABILITY AND PRICES.

TABLE 3. PROTEIN DATA BANK, ATOMIC COORDINATE HOLDINGS

11-OCT-79

IDENT CODE	MOLECULE	DEPOSITOR(S)	DATE/STATUS
1APR	*ACID PROTEINASE	D. DAVIES	8/79
1ACT	ACTINIDIN	E. BAKER	7/77
2ADK	ADENYLATE KINASE (PORCINE MUSCLE)	G. SCHULZ	3/77 R
1ACA	AGAROSE	S. ARNOTT	5/78 P
1WGA	AGGLUTININ (WHEAT GERM)	C. WRIGHT	2/78 A
1ADH	ALCOHOL DEHYDROGENASE (ADP-RIB)	C. - I. BRANDEN	8/76
2ADH	ALCOHOL DEHYDROGENASE (ORTHOPHEN)	C. - I. BRANDEN	8/76
4ADH	*ALCOHOL DEHYDROGENASE (APO)	C. - I. BRANDEN	8/79
1ALP	*ALPHA LYTIC PROTEASE	BRAYER, DELBAERE, JAMES	6/79
1ATC	*ASPARATE CARBAMOYL TRANSFERASE	CPAMFORD, MONACO, LIPSCOMB	8/79
2BCL	BACTERIOCHLOROPHYLL A-PROTEIN	B. MATTHEJS	1/79 RA
1CPV	CALCIUM-BINDING PARVALBUMIN SET 5A	R. KRETSINGER	8/74
2CPV	CALCIUM-BINDING PARVALBUMIN SET 5B	R. KRETSINGER	8/74
3CPV	CALCIUM-BINDING PARVALBUMIN SET 5C	R. KRETSINGER	8/74
1CAP	CAPSULAR POLYSACCHARIDE (E. COLI H41)	S. ARNOTT	5/78 P
1CAB	CARBONIC ANHYDRASE B (HUMAN)	K. KANNAN	6/76
1CAC	CARBONIC ANHYDRASE C (HUMAN)	K. KANNAN	5/76
1CPA	CARBOXYPEPTIDASE A (BOVINE)	W. LIPSCOMB	2/73
1CPB	CARBOXYPEPTIDASE B (BOVINE)	M. SCHMID, J. HERPIDTT	9/76 A
1CAR	CARRAGEENAN	S. ARNOTT	5/78 P
1C4S	CHONDROITIN-4-SULFATE	S. ARNOTT	5/78 P
2C4S	CHONDROITIN-4-SULFATE (CA SALT)	S. ARNOTT	5/78 P

2CHA	ALPHA-CHYMOTRYPSIN (TOSYL)	D. BLOW	1/75	R
3CHA	ALPHA-CHYMOTRYPSIN	A. TULINSKY	8/76	
1GCH	GAMMA-CHYMOTRYPSIN	COHEN, DAVIES, SILVERTON	2/77	
1CHG	CHYMOTRYPSINOGEN	J. KRAUT, J. BIRKTOFT	3/75	
2CNA	CONCAVAVALIN A	G. REEKE, J. BECKER, G. EDELMAN	4/75	
3CNA	CONCAVAVALIN A	K. HARDMAN	9/76	R
2B5C	CYTOCHROME B5 (OXIDIZED)	F. S. MATHEWS	12/77	R
156B	*CYTOCHROME B562 (E. COLI, OXIDIZED)	BETHGE, CZERWINSKI, MATHEWS	8/79	
1CYT	CYTOCHROME C (ALBACORE, OXIDIZED)	R. DICKERSON	9/76	
2CYT	CYTOCHROME C (ALBACORE, REDUCED)	R. DICKERSON	9/76	
1CYC	CYTOCHROME C (BONITO, HEART)	H. KAKUDO	8/76	
1C2C	CYTOCHROME C2	J. KRAUT	3/73	
155C	CYTOCHROME C550	R. TILKOVICH	8/76	
251C	CYTOCHROME C551	R. DICKERSON	8/78	R
1EST	ELASTASE (PORCINE, TOSYL)	H. WATSON	5/76	
1ECD	ERYTHROCUORIN (REDUCED, DEOXY)	W. STEIGEMANN, E. WEBER	3/79	
1ECO	ERYTHROCUORIN (CARBOHYDROXY)	W. STEIGEMANN, E. WEBER	3/79	
1ECA	ERYTHROCUORIN (AQUO, NET)	W. STEIGEMANN, E. WEBER	3/79	
1ECN	ERYTHROCUORIN (CYANO, MET)	W. STEIGEMANN, E. WEBER	3/79	
1FDX	FERRIDOXIN (PEPTOCOCCUS AEROGENES)	E. ADAM, L. STEKER, L. JENSEN	8/76	
1FXC	*FERRIDOXIN (SPIRULINA PLATENSIS)	H. KAKUDO	8/79	
3FXN	FLAVODOXIN (CLOSTRIDIUM NP, OXIDIZED)	M. LUDWIG	12/77	R
4FXN	FLAVODOXIN (CLOSTRIDIUM NP, SEMIQUINONE)	M. LUDWIG	12/77	
1GCN	GLUCAGON	T. BLUNDELL	10/77	
1PGI	GLUCOSE-6-PHOSPHATE ISOMERASE	H. HUIRNEAD	7/77	
1GPD	GLYCERALDEHYDE-3-P-DEHYDROGENASE (LOBSTR)	H. ROSSMANN	7/75	
1HRB	HEMERYTHRIN B	W. HENDRICKSON	6/76	A
1HM	HEMERYTHRIN (MET, AQUO)	P. STENKAMP ET AL.	1/79	P
1HDS	*HEMOGLOBIN (DEER, SICKLE CELL)	E. AMHA, P. GIRLING	10/79	P
2HNB	HEMOGLOBIN (HORSE, AQUO MET)	R. LADNER, HEIDNER, PERUTZ	2/77	R
2HNB	HEMOGLOBIN (HORSE, DEOXY)	M. PERUTZ, G. FERMI	11/73	
1HNB	HEMOGLOBIN (HUMAN, DEOXY)	M. PERUTZ, G. FERMI	4/75	
1HCO	*HEMOGLOBIN (HUMAN, CARBOHYDROXY)	J. BALDWIN	8/79	
2HCO	*HEMOGLOBIN (HUMAN, CARBOHYDROXY, NRG REFND)	J. BALDWIN	8/73	
1FDH	HEMOGLOBIN (HUMAN, FETAL, DEOXY)	J. F. PIER	8/76	
1LHC	HEMOGLOBIN (LAMPREY)	HENDRICKSON, LOVE, KARLE	3/73	
2YHX	HEXOKINASE (YEAST) FORM B111	STEITZ, ANDERSON, STENKAMP	3/78	R
1HIP	HIGH POTENTIAL IRON PROTEIN	J. KRAUT	4/75	
1HYA	HYALURONIC ACID (HA SALT, 3-FOLD HELIX)	S. ARNOTT	11/77	
2HYA	HYALURONIC ACID (HA SALT, 4-FOLD HELIX)	S. ARNOTT	5/78	P
3HYA	HYALURONIC ACID (HA SALT, 2-FOLD HELIX)	S. ARNOTT	5/78	P
4HYA	HYALURONIC ACID (CA SALT, 3-FOLD HELIX)	S. ARNOTT	5/78	P
2FAB	IMMUNOGLOBULIN FAB# NEW	P. POLJAK	6/79	
1MCG	IMMUNOGLOBULIN B-J INTACT 1MCG	SCHIFFER, EDWARDS ET AL.	5/78	A
1REI	IMMUNOGLOBULIN B-J FRAGMENT (V-DIMER) PEI	O. FFP, R. HUBER	3/76	
1PHE	IMMUNOGLOBULIN B-J FRAGMENT (V-DIMER) RHE	B. WANG, C. YOO, H. SAK	12/77	A
1KGA	KDPG ALPOLASE	A. TULINSKY	8/78	A
1KES	KERATAN SULFATE	S. ARNOTT	5/78	P
4LDH	LACTATE DEHYDROGENASE	M. EYENOFF, M. POSSMANN	4/77	P
3LDH	LACTATE DEHYDROGENASE-NAD, PYRUVATE	H. ROSSMANN	11/74	
1LDX	LACTATE DEHYDROGENASE (MOUSE TESTES)	W. MUSTICK, M. POSSMANN	9/78	
1HBL	LEGHEMOGLOBIN	VAHSSTEIN, HARPUTYUNYAN	11/78	
1LZM	LYSOZYME (BACTERIOPHAGE T4)	B. MATTHEWS	3/77	
1LYZ	LYSOZYME (HEN EGG-WHITE, SET W2)	R. DIAMOND, D. PHILLIPS	2/75	
2LYZ	LYSOZYME (HEN EGG-WHITE, SET R55D)	R. DIAMOND, D. PHILLIPS	2/75	
3LYZ	LYSOZYME (HEN EGG-WHITE, SET R56A)	R. DIAMOND, D. PHILLIPS	2/75	
4LYZ	LYSOZYME (HEN EGG-WHITE, SET R59A)	R. DIAMOND, D. PHILLIPS	2/75	
5LYZ	LYSOZYME (HEN EGG-WHITE, SET R512A)	R. DIAMOND, D. PHILLIPS	2/75	
6LYZ	LYSOZYME (HEN EGG-WHITE, SET R516)	R. DIAMOND, D. PHILLIPS	2/75	
7LYZ	LYSOZYME (HEN EGG-WHITE, TPICLINIC)	A. YONATH	5/77	
8LYZ	LYSOZYME (HEN EGG-WHITE, INACTIVATED)	S. OATLEY	9/77	
1MDH	MALATE DEHYDROGENASE	L. BANASZAK	6/76	A
1MLP	MUREIN LIPOPROTEIN (HYPOTHETICAL)	A. MCLACHLAN	3/78	
1MBN	MYOGLOBIN (SPERM WHALE, MET)	H. WATSON	4/73	
2MBN	MYOGLOBIN (SPERM WHALE, MET)	T. TAKANO	9/76	
3MBN	MYOGLOBIN (SPERM WHALE, DEOXY)	T. TAKANO	9/76	
1MBS	MYOGLOBIN (SEAL, NET)	H. SCOULOUDI	3/79	
1MHR	MYOHEMERYTHRIN	W. HENDRICKSON	6/76	A
SPAP	PAPAIN (NATIVE)	J. DRENTH	11/76	P
1PAD	PAPAIN (ACE-ALA-ALA-PHE-ALA, CYS-25)	J. DRENTH	11/76	R
2PAD	PAPAIN (CYS DERIV OF CYS-25)	J. DRENTH	11/76	P
3PAD	PAPAIN (OXIDIZED CYS-25)	J. DRENTH	11/76	P
4PAD	PAPAIN (TOS-LYS, CYS-25)	J. DRENTH	11/76	P
5PAD	PAPAIN (BZOOXY-GLY-PHE-GLY, CYS-25)	J. DRENTH	11/76	R
6PAD	PAPAIN (BZOOXY-PHE-ALA, CYS-25)	J. DRENTH	11/76	R
1PEP	PEPSIN (PORCINE)	H. ANDRUEVA ET AL.	7/78	A
1PGK	PHOSPHOGLYCERATE KINASE (YEAST)	H. WATSON	5/76	A
2PGK	PHOSPHOGLYCERATE KINASE (HOPSE)	P. EVANS, C. BLAKE	9/76	B
1PGM	PHOSPHOGLYCERATE MUTASE	CAMPBELL, WATSON, HODGSON	8/75	A
2PAB	PREALBUMIN (HUMAN, PLASMA)	S. OATLEY, C. BLAKE	9/77	R
1RLX	RELAXIN (MODEL, CONFORMATION A, UNREFINED)	A. EVANS, A. NORTH	3/78	
2RLX	RELAXIN (MODEL, CONFORMATION B, UNREFINED)	A. EVANS, A. NORTH	3/78	
3RLX	RELAXIN (MODEL, CONFORMATION A, REFINED)	A. EVANS, A. NORTH	3/78	
4RLX	RELAXIN (MODEL, CONFORMATION B, REFINED)	A. EVANS, A. NORTH	3/78	
1RHD	RHODANASE	M. HUL	12/77	
2RSA	RIBONUCLEASE A	A. WLODANEP	6/79	
1RNS	RIBONUCLEASE S	H. WICKOFF, F. RICHARDS	4/73	
2RZH	RUBREDOXIN	L. JENSEN	1/75	
1SNA	STAPHYLOCOCCAL NUCLEASE	F. A. COTTON, E. HAZEN	4/73	
1SQA	STREPTOMYCES GRISEUS PROTEINASE A	SPAYER, DELBAERE, JAMES	6/78	
2SGB	STREPTOMYCES GRISEUS PROTEINASE B	DELBAERE, BRAYER, JAMES	6/79	R
1SBT	SUBTILISIN BPH	J. KRAUT	9/72	
2SBT	SUBTILISIN NOVQ	J. DRENTH	9/76	
1SSI	SUBTILISIN INHIBITOR (STREPTOMYCES)	Y. NITSUI ET AL.	1/79	A
1SOD	SUPEROXIDE DISMUTASE	J. RICHARDSON, D. RICHARDSON	8/75	A
1TLN	THERMOLYSIN (UNREFINED)	B. MATTHEWS	4/75	
2TLN	THERMOLYSIN (REFINED)	B. MATTHEWS	4/75	
1SRX	THIOREDOXIN (E. COLI, OXIDIZED)	B. -O. SOEPBERG	5/76	A

4TNA	TRANSFER RNA (YEAST, PHE)	A. JACK, J. LADNER, A. KLUG	4/78	R
6TNA	TRANSFER RNA (YEAST, PHE)	S.-H. KIM ET AL.	11/78	R
8TNA	TRANSFER RNA (YEAST, PHE)	M. SUNDARALINGAM	2/79	R
1TIM	TRIOSE PHOSPHATE ISOMERASE	J. WILSON, D. PHILLIPS	9/76	
1PTN	TRYPsin (NATIVE, PH8)	FEHLHAMMER, BODE, SCHWAGER	1/77	
2PTB	TRYPsin (BENZAMIDINE INHIBITED, PH7)	FEHLHAMMER, BODE, SCHWAGER	1/77	R
1PTC	TRYPsin/TRYPsin INHIBITOR COMPLEX	R. HUBER, W. BODE	11/76	
3PTI	TRYPsin INHIBITOR (BOVINE, PANCREAS)	R. HUBER, J. DEISENHOFER	11/76	R
3PTP	TRYPsin (DIP INHIBITED)	J. CHAMBERS, R. STROUD	12/77	R
1TGP	TRYPsinOGEN/TRYPsin INHIBITOR	W. BODE, P. SCHWAGER, R. HUBER	3/79	
1TPI	TRYPsinOGEN/TRYPsin INHIBITOR/ILE-VAL	W. BODE, P. SCHWAGER, R. HUBER	3/79	
1TGA	TRYPsinOGEN (MGSO4, WITHOUT CA)	BODE, FEHLHAMMER, HUBER	3/79	
1TGB	TRYPsinOGEN (WITH CA, FROM PEG)	BODE, FEHLHAMMER, HUBER	3/79	
1TGH	*TRYPsinOGEN	A. KOSSIAKOFF, R. STROUD	19/79	

* NEW OR REPLACEMENT ENTRY SINCE JUL-79 NEWSLETTER

STATUS CODES

BLANK	STANDARD ENTRY AVAILABLE FOR DISTRIBUTION
A	ALPHA CARBON ATOMS ONLY
B	BACKBONE ONLY
N	NEW ENTRY AWAITING APPROVAL BY DEPOSITOR
P	IN PREPARATION
R	REPLACES AN OUT-OF-DATE PARAMETER SET

TABLE 4. PROTEIN DATA BANK. AVAILABLE PROGRAMS

11-OCT-79

NAME	PURPOSE	AUTHOR(S)	REV DATE/ SUPPORTED
BENDER	PARAMETERS FOR BENT-WIRE MODELS	G. WILLIAMS	1/79 YES
CONNECT	GENERATE FULL CONNECTIVITY	F. BERNSTEIN	4/79 YES
DGLOT	DIAGONAL PLOTS ON PRINTER	E. SWANSON, F. BERNSTEIN	3/79 YES
DSTNCE	CALC DISTANCES FROM CONNECT RECORDS	F. BERNSTEIN	3/79 YES
FIS1PL	PHI/PSI PLOTS ON PRINTER	F. BERNSTEIN	5/79 YES
NAMOD	BALL-AND-STICK MODEL DISPLAY	Y. BEPPU	11/78 NO
PHI PSI	MAIN-CHAIN TORSION ANGLES	ANDREWS, WILLIAMS, BERNSTEIN	3/79 YES
STEREO	EXTRACT X, Y, Z FROM STEREO DIAGRAMS	M. ROSSMANN	6/79 NO
TOTALS	VALIDATION OF MASTER RECORD	L. ANDREWS, F. BERNSTEIN	5/78 YES

* NEW OR REPLACEMENT ENTRY SINCE JUL-79 NEWSLETTER

SUPPORTED PROGRAMS ARE THOSE FOR WHICH STAFF OF THE PROTEIN DATA BANK WILL PROVIDE CORRECTIONS FOR DEMONSTRATED ERRORS.

TABLE 5. PROTEIN DATA BANK. STRUCTURE FACTOR HOLDINGS

11-OCT-79

IDENT CODE	MOLECULE	DEPOSITOR	DATE/ CODE
R1ACTSF	ACTINIDIN	E. BAKER	7/77 SF
CHYMOF	ALPHA-CHYMOTRYPSIN (TOSYL)	D. BLOW	4/78 SF
RCARP04	CALCIUM-BINDING PARVALBUMIN	R. KRETSINGER	3/74 SF
RCARP05	CALCIUM-BINDING PARVALBUMIN	R. KRETSINGER	2/74 SF
R2B5CSF	CYTOCHROME B5	F. S. MATHEWS	10/77 SF
RTUNOX201	CYTOCHROME C (ALBACORE, OXIDIZED)	R. DICKEPSON	5/76 SF
RTUNRD201	CYTOCHROME C (ALBACORE, REDUCED)	R. DICKEPSON	5/76 SF
RCYCS01	CYTOCHROME C550	R. TINKOVICH	1/76 SF
R151CSF	CYTOCHROME C551	R. DICKEPSON	5/76 SF
R6PD04	GLYCERALDEHYDE-3-P-DEHYDROGENASE (LOBSTR)	M. ROSSMANN	3/76 SF
RHUMDE02	HEMOGLOBIN (HUMAN, DEOXY)	M. PERUTZ, G. FERMI	5/76 SF
LAMPY1	HEMOGLOBIN (LAMPREY)	HENDRICKSON, LOVE, KARLE	3/76 SF
RLDH06	LACTATE DEHYDROGENASE	M. ROSSMANN	3/76 SF
RLDH07	LACTATE DEHYDROGENASE/NAD-PYRUVATE	M. ROSSMANN	3/76 SF
RNETYSF1	MYOGLOBIN (SPERM WHALE, MET)	T. TAKANO	5/77 SF
RDEHYSF1	MYOGLOBIN (SPERM WHALE, DEOXY)	T. TAKANO	5/77 SF
RRUBV02	RUBREDOXYN	L. JENSEN	3/74 SF

* NEW OR REPLACEMENT ENTRY SINCE JUL-79 NEWSLETTER

CODES

SF STRUCTURE FACTORS

REQUEST FORM

1. Name _____ Date _____
 Address _____ Telephone _____

2. Send the following information (please check):

- description of atomic coordinate entries (no charge)
- the magnetic tape items listed below (from Table 1)

_____ (Item "DATAPRTP" comprises all atomic coordinate sets and programs)

- the microfiche items listed below (from Table 2)

3. Tape: I am sending a new 2400 foot reel of magnetic tape yes no

4. Tape format desired:

- 7 track 556 cpi BCD-7 track only Unlabelled (preferred)
- 9 track 800 cpi ASCII-9 track only Labelled, - User's label
- 1600 cpi EBCDIC-9 track only _____

Retained

NOTE: All current coordinate entries and programs can be written to one 2400' reel of magnetic tape for one unit charge (see over) if some space economies are achieved by blocking the records. Please indicate here the maximum block size permitted if this is less than 5120 characters (bytes) _____.

(Please complete reverse side)

REQUEST FORM

5. Charges

(i) For requests to Brookhaven

- A. Data preparation (unit charge per magnetic tape) \$ _____
 Employee of U.S. Federal Agency \$51.40 ()
 All others \$55.20 () \$ _____
- B. Magnetic Tape (charge per tape) \$ 8.85 \$ _____
 (please check if answer to 3 above was NO)
- C. Postage (per magnetic tape) \$ _____
 U.S. and Canada \$ 2.00 ()
 Air Mail to Other Countries \$17.00 ()
- D. Microfiche items (Price from Table 2) \$ _____
- E. Total Charge \$ _____
- F. Payment to the order of Brookhaven National Laboratory
 by () check is () enclosed
 () purchase order number _____ () sent separately to
 the Protein Data Bank

Brookhaven requires that either a check or actual purchase order be received before data are shipped. Inclusion of check with order will expedite processing.

(ii) For requests to Cambridge

- A. Data preparation and postage (per user-supplied tape) £ _____
 Within United Kingdom £ 27.50 ()
 Elsewhere £ 35.00 ()
- B. Magnetic tape £ 8.00 ()
 (please check if NO was checked on 3 above) £ _____
- C. Microfiche (please inquire for prices) £ _____
- D. Total Charge £ _____

It is expected that the Protein Data Bank be acknowledged in publications which result from work making use of the Bank's services. In citing the Protein Data Bank in print, we suggest that a reference be included to F. C. Bernstein, T. F. Koetzle, G.J.B. Williams, E. F. Meyer, Jr., M. D. Brice, J. R. Rodgers, O. Kennard, T. Shimanouchi, and M. Tasumi, *J. Mol. Biol.* 112, 535-42 (1977).

We would appreciate receiving reprints.