

NEWSLETTER

The Protein Data Bank recently has added atomic coordinates for some polydeoxyribonucleotide structures to our holdings, as indicated in Table 3. Already a number of requests for the data have been received. We are very pleased to be able to make these DNA structures available and are looking forward to receiving others in the future.

We presently have 1100 names on the Newsletter mailing list, and rising postal rates make mailings increasingly costly. Therefore, we would appreciate your returning the form below if you wish to remain on our mailing list. The form can also be used to give corrections or additional names who are interested in the Data Bank's services.

In early April, Brookhaven will change its telephone exchange from 345 to 282. Extensions will remain the same as before. Please note our new numbers as listed below.

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.

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Mail to:
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TABLE 1. PROTEIN DATA BANK, INFORMATION AVAILABLE ON MAGNETIC TAPE

		01-APR-81		AVAILABILITY				
CODE	ITEM	NO. TAPES		US	UK	JA	AUS	
		800	1600					
DATAPTP	ALL CURRENT PROGRAMS, BIBLIOGRAPHIC ENTRIES, COORDINATE ENTRIES (TABLES 3, 4, 6)	2	1	X	X	X	X	
NONSTDTP	ALL STRUCTURE FACTOR HOLDINGS (TABLE 5)	2	1	X	X	X		
BENDERTP	PARAMETERS FOR BENT-WIRE MODELS	1	1	X				
BLDKITTP	MODEL BUILDER'S KIT	PLEASE INQUIRE AT US CENTER						
CONECTTP	CONNECTIVITY SPECIFICATIONS FOR ALL ATOMS	2	1	X				
DGPLOTP	DIAGONAL PLOTS (LINE PRINTER)	1	1	X				
DIHRLTP	COMPLETE TORSION ANGLES	2	1	X				
DSTNCTP	CONNECTIVITY SPECIFICATIONS WITH DISTANCES	2	1	X				
FISPLTP	PHI/PSI PLOTS (LINE PRINTER)	1	1	X				
PHIPSITP	LISTS OF PHI/PSI/OMEGA VALUES	1	1	X				

* NEW OR REPLACEMENT ENTRY SINCE JAN-81 NEWSLETTER

TABLE 2. PROTEIN DATA BANK, INFORMATION AVAILABLE ON MICROFICHE

		01-APR-81		AVAILABILITY				
CODE	ITEM			US	UK	JA	AUS	
DATAPRF	ALL CURRENT COORDINATE ENTRIES AND PROGRAMS (TABLES 3,4)			X	X	X		
NONSTDF	ALL STRUCTURE FACTOR HOLDINGS (TABLE 5)			X	X	X		
CORRO7F	LIST OF CORRECTIONS NO. 7 (JUL/80, JAN/81)			X	X	X	X	
BENDERF	PARAMETERS FOR BENT-WIRE MODELS			X				
BLDKITF	MODEL BUILDER'S KIT	PLEASE INQUIRE AT US CENTER						
CONECTF	CONNECTIVITY SPECIFICATIONS FOR ALL ATOMS			X				
DGPLOTF	DIAGONAL PLOTS (LINE PRINTER)			X				
DIHRLF	COMPLETE TORSION ANGLES			X				
DSTNCF	CONNECTIVITY SPECIFICATIONS WITH DISTANCES			X				
FISPLF	PHI/PSI PLOTS (LINE PRINTER)			X				
PHIPSIF	LISTS OF PHI/PSI/OMEGA VALUES			X				

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TABLE 3. PROTEIN DATA BANK, ATOMIC COORDINATE HOLDINGS

01-APR-81

IDENT CODE	MOLECULE	DEPOSITOR(S)	DATE/ STATUS
1APE	ACID PROTEINASE(ENDOTHA PARASITICA)	T.BLUNDELL	10/79
1APP	ACID PROTEINASE(PENICILLIUMJANTHINELLUM)	M.JAMES,I.HSU	12/79
1APR	ACID PROTEINASE(RHIZOPUS CHINENSIS)	D.DAVIES	8/79
2ACT	ACTINIDIN	E.BAKER	11/79 R
2ADK	ADENYLATE KINASE (PORCINE MUSCLE)	G.SCHULZ	3/77 R
1AGA	AGAROSE	S.ARNOTT	5/78
2AGA	AGGLUTININ (WHEAT GERM)	C.WRIGHT	5/80 R
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
1ABP	L-ARABINOSE-BINDING PROTEIN	F.QUITCHO,G.GILLILAND	5/80
1ATC	ASPARTATE CARBAMOYLTRANSFERASE	CRAWFORD,MONACO,LIPSCOMB	8/79 A
1AZU	AZURIN	E.ADMAN,L.SIEKER,L.JENSEN	8/80
2BCL	BACTERIOCHLOROPHYLL A-PROTEIN	B.MATTHEWS	1/79 RA
1ABX	ALPHA-BUNGAROTOXIN	D.AGAR,D.S.SPENCER,R.STROUD	4/80 A
1CPV	CALCIUM-BINDING PARVALBUMIN SET 6A	R.KRETSINGER	8/74
2CPV	CALCIUM-BINDING PARVALBUMIN SET 6B	R.KRETSINGER	8/74
3CPV	CALCIUM-BINDING PARVALBUMIN SET 6I	R.KRETSINGER	8/74
1CAP	CAPSULAR POLYSACCHARIDE (E. COLI M41)	S.ARNOTT	5/78
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)	W.LIPSCOMB	2/73
1CAR	CARRAGEENAN	M.SCHMID,J.HERRIOTT	9/76 A
1CYS	CHONDROITIN-4-SULFATE	S.ARNOTT	5/78
2CYS	CHONDROITIN-4-SULFATE (CA SALT)	S.ARNOTT	5/78
2CHA	ALPHA-CHYMOTRYPSIN (TOSYL)	D.BLOW	1/75 R
3CHA	ALPHA-CHYMOTRYPSIN	A.TULINSKY	8/76
2GCH	GAMMA-CHYMOTRYPSIN	COHEN,DAVIES,SILVERTON	5/80 R
1CHG	CHYMOTRYPSINOGEN	J.KRAUT,J.BIRKTOFT	3/75
2CNA	CONCANAVALIN A	G.REEKE,J.BECKER,G.EDELMAN	4/75
3CNA	CONCANAVALIN A	K.HARDMAN	9/76 R
2BSC	CYTOCHROME B5 (OXIDIZED)	F.S.MATHEWS	12/77 R
15BB	CYTOCHROME B562 (E.COLI,OXIDIZED)	BETHGE,CZERWINSKI,MATHEWS	8/79
3CYT	CYTOCHROME C (ALBACORE, OXIDIZED)	T.TAKANO,R.DICKERSON	7/80 R
4CYT	CYTOCHROME C (ALBACORE, REDUCED)	T.TAKANO,R.DICKERSON	7/80 R
1G2C	CYTOCHROME C2 (BONITO, HEART)	M.KAKUDO	8/76
155C	CYTOCHROME C550	J.KRAUT	3/73
251C	CYTOCHROME C551	R.TIMKOVICH	8/76
1DFR	DIHYDROFOLATE REDUCTASE (L.CASE1)	R.DICKERSON	8/78 R
2DFR	DIHYDROFOLATE REDUCTASE (E. COLI)	J.BOLIN,D.MATTHEWS,J.KRAUT	3/80
1BNA	*DNA (B,CGCGAATTCGCG, SYNTHETIC)	H.DREW,R.DICKERSON	1/81 N
1ZNA	*DNA (Z,CGCG,HIGH-SALT, SYNTHETIC)	H.DREW,R.DICKERSON	1/81
2ZNA	*DNA (Z-1,CGCGCG, SYNTHETIC,MODEL)	A.RICH	2/81 N
3ZNA	*DNA (Z-11,CGCGCG, SYNTHETIC,MODEL)	A.RICH	2/81 N
1EST	ELASTASE (PORCINE, TOSYL)	H.WATSON	5/76
1ECD	ERYTHROCRUORIN (REDUCED, DEOXY)	W.STEIGEMANN,E.WEBER	3/79
1ECO	ERYTHROCRUORIN (CARBONMONOXY)	W.STEIGEMANN,E.WEBER	3/79
1ECA	ERYTHROCRUORIN (AQUO, MET)	W.STEIGEMANN,E.WEBER	3/79
1ECN	ERYTHROCRUORIN (CYANO, MET)	W.STEIGEMANN,E.WEBER	3/79
1FDX	FERREDOXIN (PEPTOCOCCUS AEROGENES)	E.ADMAN,L.SIEKER,L.JENSEN	8/76
1FXC	FERREDOXIN (SPIRULINA PLATENSIS)	M.KAKUDO	8/79
1FD1	*FERREDOXIN (AZOTOBACTER VINELANDII)	STOUT,GHOSH,FUREY,ODONNELL	1/81
3FXN	FLAVODOXIN (CLOSTRIDIUM MP, OXIDIZED)	M.LUDWIG	12/77 R
4FXN	FLAVODOXIN (CLOSTRIDIUM MP, SEMIQUINONE)	M.LUDWIG	12/77
1GCN	GLUCAGON	H.MUIRHEAD	7/77
1PGI	GLUCOSE-6-PHOSPHATE ISOMERASE	G.SCHULZ	12/80 A
1GRS	GLUTATHIONE REDUCTASE (HUMAN)	M.ROSSMANN	7/75
1GPD	GLYCERALDEHYDE-3-P-DEHYDROGENASE (LOBSTRIN)	M.ROSSMANN	12/79
2GPD	APO-GLYCERALDEHYDE-3-P-DEHYDROGENASE	W.HENDRICKSON	6/76 A
1HRB	HEMERYTHRIN B	M.HENDRICKSON	6/76 A
1HMN	HEMERYTHRIN (MET, AQUO)	R.STENKAMP ET AL.	1/79 A
1HDS	HEMOGLOBIN (DEER, SICKLE CELL)	E.AMMA,R.GIRLING	10/79
2MHB	HEMOGLOBIN (HORSE, AQUO MET)	R.LADNER,HEIDNER,PERUTZ	2/77 R
2DHB	HEMOGLOBIN (HORSE, DEOXY)	M.PERUTZ,G.FERMI	1/73
1HHB	HEMOGLOBIN (HUMAN, DEOXY)	M.PERUTZ,G.FERMI	4/75
1HCO	HEMOGLOBIN (HUMAN, CARBONMONOXY)	J.BALDWIN	8/79
2HCO	HEMOGLOBIN (HUMAN, CARBONMONOXY, NRG REFND)	J.BALDWIN	8/79
1FDH	HEMOGLOBIN (HUMAN, FETAL, DEOXY)	J.FRIER	8/76
1LHB	HEMOGLOBIN (LAMPREY)	HENDRICKSON,LOVE,KARLE	3/73
1HKG	HEXOKINASE A - GLUCOSE COMPLEX (YEAST)	W.BENNETT JR.,T.STEITZ	12/80
2YHX	HEXOKINASE (YEAST) FORM B111	STEITZ,ANDERSON,STENKAMP	3/78 R
1H1P	HIGH POTENTIAL IRON PROTEIN	J.KRAUT	4/75
1HYA	HYALURONIC ACID (NA SALT, 3-FOLD HELIX)	S.ARNOTT	11/77
2HYA	HYALURONIC ACID (NA SALT, 4-FOLD HELIX)	S.ARNOTT	5/78
3HYA	HYALURONIC ACID (NA SALT, 2-FOLD HELIX)	S.ARNOTT	5/78
4HYA	HYALURONIC ACID (CA SALT, 3-FOLD HELIX)	S.ARNOTT	5/78
2FAB	IMMUNOGLOBULIN FAB* NEW	R.POLJAK	6/79
1MCG	IMMUNOGLOBULIN B-J INTACT MCG	SCHIFFER,EDMUNDSON ET AL.	5/78 A
1REI	IMMUNOGLOBULIN B-J FRAGMENT (V-DIMER)REI	O.EPP,R.HUBER	3/76
1RHE	IMMUNOGLOBULIN B-J FRAGMENT (V-MMER)RHE	B.WANG,C.YOO,M.SAX	12/77 A
1INS	INSULIN (PORCINE, 2-ZINC)	G.DODSON,D.HODGKIN	7/80

1KGA	KDGP ALDOLASE	A.TULINSKY	8/78 A
1KES	KERATAN SULFATE	S.ARNOTT	5/78
1LXD	LACTATE DEHYDROGENASE (HOUSE TESTES)	W.MUSICK,M.ROSSMANN	9/78
4LDH	LACTATE DEHYDROGENASE (PIG)	W.EVENTOFF,M.ROSSMANN	4/77 R
3LDH	LACTATE DEHYDROGENASE/NAD/PYRUVATE (PIG)	M.ROSSMANN	11/74
5LDH	LACTATE DEHYDROGENASE/S-LAC/NAD (PIG)	U.GRAU,M.ROSSMANN	10/80
1HBL	LEGHEMOGLOBIN	VAINSHTEIN,HARUTYUNYAN	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, TRICLINIC)	A.YONATH	5/77
8LYZ	LYSOZYME (HEN EGG-WHITE, INACTIVATED)	S.OATLEY	9/77
9LYZ	LYSOZYME (HEN,NAM-NAG-NAM SUBSTRATE ONLY)	J.KELLY,M.JAMES	12/79
1MDH	MALATE DEHYDROGENASE	L.BANASZAK	6/76 A
1MLP	MURELIN LIPOPROTEIN (HYPOTHETICAL)	A.MCLACHLAN	8/78
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, MET)	H.SCOULODI	2/79
1MRH	MYOHEMERYTHRIN	W.HENDRICKSON	8/76 A
1NXB	NEUROTOXIN B (LATICAUDA SEMIFASCIATA)	D.TSERNOGLOU,G.PETSKO	8/80
1PPT	*AVIAN PANCREATIC POLYPEPTIDE	T.BLUNDELL	1/81
8PAP	PAPAIN (NATIVE)	J.DRENTH	11/75 R
1PAD	PAPAIN (ACE-ALA-ALA-PHE-ALA, CYS-25)	J.DRENTH	11/75 R
2PAD	PAPAIN (CYS DERIV OF CYS-25)	J.DRENTH	11/76 R
3PAD	PAPAIN (OXIDIZED CYS-25)	J.DRENTH	11/76 R
4PAD	PAPAIN (TOS-LYS, CYS-25)	J.DRENTH	11/76 R
5PAD	PAPAIN (BZOXY-GLY-PHE-GLY, CYS-25)	J.DRENTH	11/76 R
6PAD	PAPAIN (BZOXY-PHE-ALA, CYS-25)	J.DRENTH	11/76 R
1PEP	PEPSIN (PORCINE)	N.ANDREEVA ET AL.	7/78 A
1PGK	PHOSPHOGLYCERATE KINASE (YEAST)	H.WATSON	5/76 A
2PGK	PHOSPHOGLYCERATE KINASE (HORSE)	P.EVANS,C.BLAKE	9/76 B
1PGM	PHOSPHOGLYCERATE MUTASE	CAMPBELL,WATSON,HODGSON	8/75 A
1PCY	PLASTOCYANIN	J.GUSS,H.FREEMAN	8/80
2PAB	PREALBUMIN (HUMAN, PLASMA)	S.OATLEY,C.BLAKE	9/77 R
1PYK	PYRUVATE KINASE (CAT)	H.MUIRHEAD	1/80 A
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	W.HOL	12/77
2RSA	RIBONUCLEASE A	A.WLODAWER	6/79
1RNS	RIBONUCLEASE S	H.WYCKOFF,F.RICHARDS	4/73
2RXN	RUBREDOXIN(CLOSTRIDIUM PASTEURIANUM)	L.JENSEN	1/75
3RXN	RUBREDOXIN(DESULFOVIBRIO VULGARIS)	E.ADMAN,L.SIEKER,L.JENSEN	9/80
1SNS	STAPHYLOCOCCAL NUCLEASE	F.A.COTTON,E.HAZEN	4/73
1SGA	STREPTOMYCES GRISEUS PROTEINASE A	BRAYER,DELBAERE,JAMES	6/78
2SGB	STREPTOMYCES GRISEUS PROTEINASE B	DELBAERE,BRAYER,JAMES	6/79 R
2SBI	SUBTILISIN INHIBITOR (STREPTOMYCES)	Y.MITSUI ET AL.	4/80 R
1SBT	SUBTILISIN BPN1	J.KRAUT	8/72
2SBT	SUBTILISIN NOVO	J.DRENTH	9/76
2SDO	SUPEROXIDE DISMUTASE	J.RICHARDSON,D.RICHARDSON	3/80 R
1TLN	THERMOLYSIN (UNREFINED)	B.MATTHEWS	4/75
2TLN	THERMOLYSIN (REFINED)	B.MATTHEWS	4/75
1SRX	THIOREDOXIN (E. COLI, OXIDIZED)	B.-O.SODERBERG	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	TIOSULFOPHOSPHATE ISOMERASE	I.WILSON,D.PHILLIPS	9/76
1TNC	TROPONIN (CA-BINDING COMPONENT,MODEL)	R.KRETSINGER,C.BARRY	6/80 A
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
1ITP	TRYPSINOGEN/TRYPSIN INHIBITOR	W.BODE,P.SCHWAGER,R.HUBER	3/79
1ITPI	TRYPSINOGEN/TRYPSIN INHIBITOR/ILE-VAL	W.BODE,P.SCHWAGER,R.HUBER	3/79
1IGA	TRYPSINOGEN (MGS04, WITHOUT CA)	BODE,FEHLHAMMER,HUBER	3/79
1IGB	TRYPSINOGEN (WITH CA, FROM PEG)	BODE,FEHLHAMMER,HUBER	3/79
1IGN	TRYPSINOGEN	A.KOSIACKOFF,R.STROUD	9/79
1SBV	VIRUS COAT PROTEIN(SOUTHERN BEAN MOSAIC)	M.ROSSMANN	12/79 B

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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

01-APR-81			
NAME	PURPOSE	AUTHOR(S)	REV DATE/ SUPPORTED
BENDER	PARAMETERS FOR BENT-WIRE MODELS	G.WILLIAMS	1/79 YES
BLDKIT	MODEL BUILDER+S KIT	E.ABOLA	7/80 YES
CHIRAL	CHECK CHIRALITY	E.ABOLA	3/80 YES
CONECT	GENERATE FULL CONNECTIVITY	F.BERNSTEIN	4/79 YES
CONCTC	INTERMOLECULAR CONTACTS	L.ANDREWS	10/79 NO
DGPILOT	DIAGONAL PLOTS ON PRINTER	E.SWANSON,F.BERNSTEIN	3/79 YES
DIHDRL	COMPLETE TORSION ANGLES	E.ABOLA	3/80 YES
DSTNCE	CALC DISTANCES FROM CONECT RECORDS	F.BERNSTEIN	3/79 YES
FISIPL	PHI/PSI PLOTS ON PRINTER	F.BERNSTEIN	5/79 YES
NAMOD	BALL-AND-STICK MODEL DISPLAY	Y.BEPPU	11/78 NO
PHIPSI	MAIN-CHAIN TORSION ANGLES	ANDREWS,WILLIAMS,BERNSTEIN	2/79 YES
STEREO	EXTRACT X,Y,Z FROM STEREO DIAGRAMS	M.ROSSMANN	6/79 NO
TAPDIR	PRINT DIRECTORY OF TAPE CONTENTS	H.BERNSTEIN,F.BERNSTEIN	12/79 YES
TORSRU	COMPLETE TORSION ANGLES	G.REEKE	10/79 NO
TOTALS	VALIDATION OF MASTER RECORD	L.ANDREWS,F.BERNSTEIN	5/78 YES

* NEW OR REPLACEMENT ENTRY SINCE JAN-81 NEWSLETTER

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

TABLE 6. PROTEIN DATA BANK, BIBLIOGRAPHIC ENTRIES

01-APR-81	
OEAP	ACID PROTEINASE (ENDOTHIA PARASITICA)
OAF1	APOFERRITIN (HORSE)
OMAA	MITOCHONDRIAL ASPARTATE AMINOTRANSFERASE
OCTS	CITRATE SYNTHASE (PIG)
OCTX	ALPHA COBRATOXIN
OCN1	CONCAVALIN A (DEMETALLIZED)
OCN2	CONCAVALIN A (DEMETALLIZED)
OCYP	CYTOCHROME C PEROXIDASE (SACCHAROMYCES CEREVISIAE)
OCY2	CYTOCHROME C* (RHODOSPIRILLUM MOLISCHIANUM)
OCY3	CYTOCHROME C3 (DESULFOVIBRIO DESULFURICANS NORWAY)
OSC1	CYTOCHROME C555 (CHLOROBIUM THIOSULFATOPHILUM)
OESZ	ELASTASE COMPLEX (PIG)
OETU	ELONGATION FACTOR TU COMPLEX (E. COLI)
OEBS	ERABUTOXIN B
OFD1	FERREDOXIN (AZOTOBACTER VINLANDII)
OFX1	FLAVODOXIN (DESULFOVIBRIO VULGARIS)
OFX2	FLAVODOXIN (REDUCED, CLOSTRIDIUM MP)
OGP1	GLUTATHIONE PEROXIDASE (BOVINE)
OGD1	D-GLYCERALDEHYDE 3-PHOSPHATE DEHYDROGENASE (BACILLUS STEAROTHERMOPHILUS)
OHBG	HEMOGLOBIN (GLYCERA DIBRANCHIATA)
OPHH	P-HYDROXYBENZOATE HYDROXYLASE (PSEUDOMONAS FLUORESCENS)
OAUI	IMMUNOGLOBULIN, BENGE-JONES FRAGMENT (KAPPA) AU
OROY	IMMUNOGLOBULIN, BENGE-JONES FRAGMENT (V-MONOMER,KAPPA) ROY
OMCP	IMMUNOGLOBULIN FAB (KAPPA) MCP603
OFB4	IMMUNOGLOBULIN FAB (LAMBDA) KOL
OF22	IMMUNOGLOBULIN FC (HUMAN) - FRAGMENT B OF PROTEIN A (STAPH AUREUS) COMPLEX
OF21	IMMUNOGLOBULIN FC (HUMAN)
OIG1	IMMUNOGLOBULIN G1 (KAPPA) DOB
OIG2	IMMUNOGLOBULIN G1 (LAMBDA) KOL
OIN2	INSULIN (PORCINE)
OGF1	INSULIN-LIKE GROWTH FACTOR I (HUMAN)
OGF2	INSULIN-LIKE GROWTH FACTOR II (HUMAN)
QLZ1	LYSOZYME (HUMAN)
QLZ2	LYSOZYME (TURKEY)
QLZ5	LYSOZYME (HEN EGG-WHITE, NEUTRON STUDY)
OCF7	L7/L12 (E. COLI, C-TERMINUS)
OMB5	MYOGLOBIN (SPERM WHALE, CARBON MONOXIDE, NEUTRON STUDY)
OMB2	MYOGLOBIN (SPERM WHALE, MET, TEMPERATURE STUDIES)
OMB3	MYOGLOBIN (SPERM WHALE, MET, NEUTRON STUDY)
OMB4	MYOGLOBIN (SPERM WHALE, OXY)
ODFK	PHOSPHOFRUCTOKINASE (BACILLUS STEAROTHERMOPHILUS)
OBP2	PHOSPHOLIPASE A2 (BOVINE)
OBP1	PHOSPHOLIPASE A2 (PORCINE)
OPPA	PHOSPHORYLASE A (RABBIT)
OPB1	PHOSPHORYLASE B (RABBIT)
ORX5	RELAXIN (PORCINE, MODEL)
ORSA	RIBONUCLEASE A (BOVINE)
ORN3	RIBONUCLEASE A (BOVINE)
OFMT	INITIATOR TRANSFER RNA (E. COLI, F/MET)
OTA1	*TRANSFER RNA (YEAST, ASP, A FORM)
OTA2	*TRANSFER RNA (YEAST, ASP, B FORM)
OTR1	TRANSFER RNA (YEAST, PHE)
OTS1	TYROSYL TRANSFER RNA SYNTHETASE (BACILLUS STEAROTHERMOPHILUS)
OGN5	GENE 5 DNA-UNWINDING PROTEIN (E. COLI)
OUTG	*TEROGLOBIN (RABBIT)
OTMV	VIRUS PROTEIN DISK (TOBACCO MOSAIC)
OTBV	VIRUS (TOMATO BUSHY STUNT)

* NEW OR REPLACEMENT ENTRY SINCE JAN-81 NEWSLETTER

TABLE 5. PROTEIN DATA BANK, STRUCTURE FACTOR HOLDINGS

01-APR-81			
IDENT CODE	MOLECULE	DEPOSITOR	DATE/ CODE
R1ACTSF	ACTINIDIN	E.BAKER	7/77 SF
CHYMOF	ALPHA-CHYMOTRYPSIN (TOSYL)	D.BLOW	4/73 SF
RCARP04	CALCIUM-BINDING PARVALBUMIN	R.KRETSINGER	2/74 SF
RCARP05	CALCIUM-BINDING PARVALBUMIN	R.KRETSINGER	2/74 SF
R2B5CSF	CYTOCHROME B5	F.S.MATHEWS	12/77 SF
R3CYTSF	CYTOCHROME C (ALBACORE, OXIDIZED)	T.TAKANO,R.DICKERSON	7/80 SF
R4CYTSF	CYTOCHROME C (ALBACORE, REDUCED)	T.TAKANO,R.DICKERSON	7/80 SF
RCYC5501	CYTOCHROME C550	R.TIMKOVICH	4/76 SF
R151CSF	CYTOCHROME C551	R.DICKERSON	8/78 SF
R1ZNASF	*DNA (Z1,CGCG,HIGH-SALT,SYNTHETIC)	H.DREN,R.DICKERSON	1/81 SF
RGPD04	GLYCERALDEHYDE-3-P-DEHYDROGENASE (LOBSTR)	M.ROSSMANN	8/75 SF
R2GPDFS	AP0-GLYCERALDEHYDE-3-P-DEHYDROGENASE	M.ROSSMANN	12/79 SF
R2PHBSF	HEMOGLOBIN (HORSE, AQUO MET AND CO)	LADNER,HEIDNER,PERUTZ	6/80 SF
R1FDHSF	HEMOGLOBIN (HUMAN, FETAL, DEOXY)	J.FRIER	6/80 SF
RHUMDEH02	HEMOGLOBIN (HUMAN,DEOXY)	M.PERUTZ,G.FERMI	5/75 SF
LAMPRY1	HEMOGLOBIN (LAMPREY)	HENDRICKSON,LOVE,KARLE	5/73 SF
RLDH06	LACTATE DEHYDROGENASE	M.ROSSMANN	8/75 SF
RLDH07	LACTATE DEHYDROGENASE/NAD/PYRUVATE	M.ROSSMANN	8/75 SF
R5LDHSF	*LACTATE DEHYDROGENASE/S-LAC/NAD (PIG)	U.GRAU,M.ROSSMANN	1/81 SF
RMETMYSF1	MYOGLOBIN (SPERM WHALE, MET)	T.TAKANO	6/76 SF
RDEMYSF1	MYOGLOBIN (SPERM WHALE, DEOXY)	T.TAKANO	6/76 SF
RUBUY02	RUBREDOXIN	L.JENSEN	3/74 SF
R4TNASF	TRANSFER RNA (YEAST, PHE)	A.JACK,J.LADNER,A.KLUG	6/80 SF

* NEW OR REPLACEMENT ENTRY SINCE JAN-81 NEWSLETTER

CODES

SF STRUCTURE FACTORS

REQUEST FORM

1. Name _____ Date _____
 Address _____ Telephone _____

2. Tape format desired (all tapes are unlabelled)

- () 9 track, 1600 cpi, EBCDIC
 () 9 track, 800 cpi, EBCDIC
 () 9 track, 1600 cpi, ASCII
 () 9 track, 800 cpi, ASCII
 () 7 track, 800 cpi, BCD

Only the first two formats are normally prepared at Cambridge; please inquire for availability of other formats.

All tapes are distributed in blocked form with fixed record length and block size. Brookhaven normally uses a block size close to, but less than, 5120 characters. Please indicate here any difficulties this might cause.

3. () Please send a description of the atomic coordinate entries at no charge (latest revision March 1981).

4. Please send the following magnetic tape items (from Table 1). Each 1-tape item costs \$96 (~~£~~45); each 2-tape item costs \$116 (~~£~~53).

<u>Item</u>	<u>Number of Tapes</u>	<u>Cost</u>
-------------	------------------------	-------------

Total _____

5. Please send the following microfiche items (from Table 2). Each microfiche item costs \$81 (~~£~~36 from Cambridge). Correction fiche are free.

Item

Cost

Total _____

6. Air mail postage from Brookhaven to destinations outside U. S. and Canada or from Cambridge to destinations outside the United Kingdom. A postage surcharge of \$15 (~~£~~5) is required per magnetic tape (not per item).

Number of tapes x \$15.00 (~~£~~5) = _____

7. Total charges

Magnetic tape charges (4 above) _____

Microfiche charges (5 above) _____

Air mail postage charges (6 above). _____

Total _____

For Brookhaven only:

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

Payment to the order of Brookhaven National Laboratory

by () check is () enclosed
 () purchase order number _____ () sent separately to the Protein Data Bank

Please return to

Ms. F. C. Bernstein
 Chemistry Department
 Brookhaven National Laboratory
 Upton, New York 11973 USA

or

Dr. S. Bellard
 University Chemical Laboratory
 Lensfield Road
 Cambridge CB2 1EW, England