We are very pleased to report that requests for data from Protein Data Bank users are running at an all-time high. At the present rate, we project that Brookhaven will fill approximately 160 orders for this year; up from the previous annual high of 119. These totals do not include requests received by the centers in England, Australia and Japan.

The Data Bank now has 274 atomic coordinate and 104 structure factor entries available for distribution, while the total size of the data base has grown to 47 Mbytes for coordinates and 99 Mbytes for structure factors. By improving data processing software, we continue to be able to handle most new depositions within several weeks of receipt.

Tom Koetzle will be attending the European Crystallographic Meeting in Turin, Italy, September 2-6. Tom will bring a display to Turin describing the Protein Data Bank, and he looks forward to meeting many European users at the Conference.

Inquiries may be addressed to any of the persons listed below. The order form on pages 5-6 of this Newsletter may be used to order data from Brookhaven or Cambridge; users in Australia or Japan should contact their centers for detailed information.

Area	Address of Center	Name	
The Americas	Protein Data Bank Chemistry Department Brookhaven National Laboratory Upton, New York 11973, USA	E. E. Abola F. C. Bernstein T. F. Koetzle	516-282-4383 516-282-4382 516-282-4384
Europe and Worldwide	University Chemical Laboratory Lensfield Road Cambridge CB2 1EW, England	O. Kennard S. Bellard	0223-66499
Australia	CSIRO Central Information Service P. O. Box 89, East Melbourne Victoria 3002, Australia	C. Garrow	03-418-7333
Japan	Institute for Protein Research Osaka University Yamadaoka, 3-2, Suita, Osaka 565, Japan	Y. Katsube K. Yoshida	(06) 877-5111 ext. 3912

Supported by the U. S. National Science Foundation and U. S. National Institutes of Health.

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

12-JUN-85

CODE	ITEM	NO.TAPES 800	1600	6250	AVAILABILITY US	UK	JA	AUS
DATAPRTP	ALL CURRENT PROGRAMS, BIBLIOGRAPHIC ENTRIES, COORDINATE ENTRIES (TABLES 3, 7, 9)	3	2	1	X	X	X	X
YEAR84TP	NEW OR REVISED COORDINATE ENTRIES FOR 1984	1	1	1	X	X		
PART85TP	NEW OR REVISED COORD ENTRIES 1985 (TO DATE)	1	1	1	X			
NONST1TP	STRUCTURE FACTOR HOLDINGS (PART 1 - TABLE 4)	2	1	1	X	X	X	
NONST2TP	STRUCTURE FACTOR HOLDINGS (PART 2 - TABLE 5)	2	1	1	X	X	X	
NONST3TP	STRUCTURE FACTOR HOLDINGS (PART 3 - TABLE 6)	1	1	1	X	X	X	
BENDERTP	PARAMETERS FOR BENT-WIRE MODELS	1	1	1	X			
BLDKITTP	MODEL BUILDER*S KIT	PLEASE	INQUIRE	AT	US	CENTER		
CONECTTP	CONNECTIVITY SPECIFICATIONS FOR ALL ATOMS	2	1	1	X			
DGPLOTTP	DIAGONAL PLOTS (LINE PRINTER)	1	1	1	X			
DIHDRLTP	COMPLETE TORSION ANGLES	2	1	1	X			
DSTNCETP	CONNECTIVITY SPECIFICATIONS WITH DISTANCES	2	1	1	X			
FISIPLTP	PHI/PSI PLOTS (LINE PRINTER)	1	1	1	X			
PHIPSITP	LISTS OF PHI/PSI/OMEGA VALUES	1	1	1	X			

* NEW OR REPLACEMENT ENTRY SINCE APR-85 NEWSLETTER

TABLE 2. PROTEIN DATA BANK, INFORMATION AVAILABLE ON MICROFICHE

12-JUN-85

CODE	ITEM	AVAILABILITY US	UK	JA	AUS
DATAPRFI	ALL CURRENT PROGRAMS, BIBLIOGRAPHIC ENTRIES, COORDINATE ENTRIES (TABLES 3, 7, 9)	X	X	X	
YEAR84FI	NEW OR REVISED COORDINATE ENTRIES FOR 1984	X			
PART85FI	NEW OR REVISED COORDINATE ENTRIES 1985 (TO DATE)	X			
NONST1FI	STRUCTURE FACTOR HOLDINGS (PART 1 - TABLE 4)	X	X	X	
NONST2FI	STRUCTURE FACTOR HOLDINGS (PART 2 - TABLE 5)	X	X	X	
NONST3FI	STRUCTURE FACTOR HOLDINGS (PART 3 - TABLE 6)	X	X	X	
CORR16FI	LIST OF CORRECTIONS NO. 16 (JAN/85 - JUL/85)	X	X	X	X
BENDERFI	PARAMETERS FOR BENT-WIRE MODELS	X			
BLDKITFI	MODEL BUILDER*S KIT	PLEASE INQUIRE AT US CENTER			
CONECTFI	CONNECTIVITY SPECIFICATIONS FOR ALL ATOMS	X			
DGPLOTFI	DIAGONAL PLOTS (LINE PRINTER)	X			
DIHDRLFI	COMPLETE TORSION ANGLES	X			
DSTNCEFI	CONNECTIVITY SPECIFICATIONS WITH DISTANCES	X			
FISIPLFI	PHI/PSI PLOTS (LINE PRINTER)	X			
PHIPSIFI	LISTS OF PHI/PSI/OMEGA VALUES	X			

* NEW OR REPLACEMENT ENTRY SINCE APR-85 NEWSLETTER

TABLE 3. PROTEIN DATA BANK, AVAILABLE PROGRAMS

12-JUN-85

NAME	PURPOSE	AUTHOR(S)	REV DATE/ SUPPORTED	
BENDER	PARAMETERS FOR BENT-WIRE MODELS	G.WILLIAMS	4/82	YES
BLDKIT	MODEL BUILDER*S KIT	E.ABOLA	2/84	YES
CHIRAL	CHECK CHIRALITY	E.ABOLA	1/82	YES
CONECT	GENERATE FULL CONNECTIVITY	F.BERNSTEIN	8/82	YES
CONTCT	INTERMOLECULAR CONTACTS	L.ANDREWS	5/83	NO
DGPLOT	DIAGONAL PLOTS ON PRINTER	E.SWANSON,F.BERNSTEIN	1/83	YES
DIHDRL	COMPLETE TORSION ANGLES	E.ABOLA	3/80	YES
DRCTRY	DIRECTORY OF PDB DISTRIBUTION TAPE	E.ABOLA	5/84	YES
DSSP	SECONDARY STRUCTURE,SOLVENT EXPOSURE	W.KABSCH,C.SANDER	12/83	NO
DSTNCE	CALC DISTANCES FROM CONECT RECORDS	F.BERNSTEIN	8/82	YES
FISIPL	PHI/PSI PLOTS ON PRINTER	F.BERNSTEIN	5/79	YES
LSM	COLOR-CODED ALPHA-CARBON MODELS	R.MATELA,R.FLETTERICK	3/82	NO
NAMOD	BALL-AND-STICK MODEL DISPLAY	Y.BEPPU	11/78	NO
PHIPSI	MAIN-CHAIN TORSION ANGLES	ANDREWS,WILLIAMS,BERNSTEIN	2/79	YES
REFMTE	REFORMAT DATA FOR SUPERTAB,SUPERB	L.RELLICK,J.DUANE	12/83	NO
STEREO	EXTRACT X,Y,Z FROM STEREO DIAGRAMS	M.ROSSMANN	6/79	NO
TAPDIR	PRINT DIRECTORY OF TAPE CONTENTS	H.BERNSTEIN,F.BERNSTEIN	11/79	YES
THEOD	MEASURE COORDINATES WITH THEODOLITE	L.LEBIODA	1/82	NO
TORSRU	COMPLETE TORSION ANGLES	G.REEKE	10/79	NO
TOTALS	VALIDATION OF MASTER RECORD	L.ANDREWS,F.BERNSTEIN	3/82	YES

* NEW OR REPLACEMENT ENTRY SINCE APR-85 NEWSLETTER

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

TABLE 4. PROTEIN DATA BANK, STRUCTURE FACTOR HOLDINGS (PART 1, SEE ALSO TABLES 5,6)

12-JUN-85

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
RCYC55O1	CYTOCHROME C550	R.TIMKOVICH	4/76	SF
R1ZNASF	DNA(Z',CGCG,HIGH-SALT,SYNTHETIC)	H.DREW,R.DICKERSON	1/81	SF
R1BNASF	DNA(B,CGCGAATTCGCG,SYNTHETIC,290 DEG K)	H.DREW,R.DICKERSON	1/81	SF
RGPD04	GLYCERALDEHYDE-3-P-DEHYDROGENASE(LOBSTR)	M.ROSSMANN	8/75	SF
R2GPDSF	APO-GLYCERALDEHYDE-3-P-DEHYDROGENASE	M.ROSSMANN	12/79	SF
R2MHBSF	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
R1LZHSF	LYSOZYME (HEN EGG-WHITE, MONOCLINIC)	C.BLAKE,D.RICE	6/81	SF
R2LZHSF	LYSOZYME (HEN EGG-WHITE, ORTHORHOMBIC)	C.BLAKE,D.RICE	6/81	SF
RMETMYSF1	MYOGLOBIN (SPERM WHALE, MET)	T.TAKANO	6/76	SF
RDEMYSF1	MYOGLOBIN (SPERM WHALE, DEOXY)	T.TAKANO	6/76	SF
R4TNASF	TRANSFER RNA (YEAST, PHE)	A.JACK,J.LADNER,A.KLUG	6/80	SF

CODES

SF STRUCTURE FACTORS

TABLE 5. PROTEIN DATA BANK, STRUCTURE FACTOR HOLDINGS (PART 2, SEE ALSO TABLES 4,6)

12-JUN-85

IDENT CODE	MOLECULE	DEPOSITOR	DATE/ CODE	
R1ICBSF	CALCIUM-BINDING PROTEIN(INTESTINAL)	D.SZEBENYI,K.MOFFAT	7/83	SF
R1CCRSF	CYTOCHROME C (RICE)	H.OCHI,N.TANAKA	3/83	SF
R351CSF	CYTOCHROME C551 (OXIDIZED)	T.TAKANO,R.DICKERSON	9/81	SF
R451CSF	CYTOCHROME C551 (REDUCED)	T.TAKANO,R.DICKERSON	9/81	SF
R1ANASF	DNA(A,D-IODO-CCGG)SPACE GROUP P 43 21 2	B.CONNER,R.DICKERSON	6/82	SF
R1ANAP2	DNA(A,D-IODO-CCGG)SPACE GROUP P 21	B.CONNER,R.DICKERSON	6/82	SF
R2BNASF	DNA(B,CGCGAATTCGCG,SYNTHETIC,16 DEG K)	H.DREW,R.DICKERSON	11/81	SF
R3BNASF	DNA(B,9-BR-CGCGAATTCGCG,20 DEG C)	KOPKA,FRATINI,DICKERSON	2/82	SF
R4BNASF	DNA(B,9-BR-CGCGAATTCGCG, 7 DEG C)	KOPKA,FRATINI,DICKERSON	2/82	SF
R5BNASF	DNA(B,CGCGAATTCGCG,SYNTHETIC)/CISPLATIN	WING,PJURA,DREW,DCKRSN	8/83	SF
R1GAASF	GLUTAMINASE-ASPARAGINASE(ACINETOBACTER)	H.AMMON	12/82	SF
R1GASSF	GLUTAMINASE-ASPARAGINASE(PSEUDOMONAS 7A)	H.AMMON	12/82	SF
R1HMQSF	HEMERYTHRIN(MET)	STENKAMP,SIEKER,JENSEN	2/83	SF
R1HMZSF	HEMERYTHRIN(AZIDO,MET)	STENKAMP,SIEKER,JENSEN	2/83	SF
R2INSSF	INSULIN(BOVINE,2-ZINC)DES-PHE B1	C.REYNOLDS,G.DODSON	5/82	SF
R1LH1SF	LEGHEMOGLOBIN(ACETATE MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R2LH1SF	LEGHEMOGLOBIN(ACETATE MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R1LH2SF	LEGHEMOGLOBIN(AQUO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R2LH2SF	LEGHEMOGLOBIN(AQUO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R1LH3SF	LEGHEMOGLOBIN(CYANO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R2LH3SF	LEGHEMOGLOBIN(CYANO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R1LH4SF	LEGHEMOGLOBIN(DEOXY)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R2LH4SF	LEGHEMOGLOBIN(DEOXY)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R1LH5SF	LEGHEMOGLOBIN(FLUORO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R2LH5SF	LEGHEMOGLOBIN(FLUORO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R1LH6SF	LEGHEMOGLOBIN(NICOTINATE MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R2LH6SF	LEGHEMOGLOBIN(NICOTINATE MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R1LH7SF	LEGHEMOGLOBIN(FERRO)/NITROSOBENZENE	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R2LH7SF	LEGHEMOGLOBIN(FERRO)/NITROSOBENZENE	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R1LYMSF	LYSOZYME(HEN EGG-WHITE,MONOCLINIC)	HOGLE,RAO,SUNDARALINGAM	7/82	SF
R1MLTSF	MELITTIN	TERWILLIGER,EISENBERG	8/81	SF
R1OVOSF	OVOMUCOID FRAGMENT	E.PAPAMOKOS,R.HUBER	1/82	SF
R2BP2SF	PROPHOSPHOLIPASE A2 (BOVINE)	DIJKSTRA,HOL,DRENTH	9/81	SF
R1PYPSF	INORGANIC PYROPHOSPHATASE	E.HARUTYUNYAN ET AL.	2/83	SF
R1RN3SF	RIBONUCLEASE A	BORKAKOTI,MOSS,PALMER	6/82	SF
R3TLNSF	THERMOLYSIN(NATIVE)	B.MATTHEWS,M.HOLMES	2/82	SF
R2PTNSF	TRYPSIN(ORTHORHOMBIC,2.4M (NH4)2SO4)	J.WALTER,R.HUBER	10/81	SF
R1TPOSF	TRYPSIN(ORTHORHOMBIC)	BODE,WALTER,HUBER	9/82	SF
R3PTNSF	TRYPSIN(TRIGONAL,2.4M (NH4)2SO4)	J.WALTER,R.HUBER	10/81	SF
R3PTBSF	TRYPSIN(BENZAMIDINE INHIBITED)	BODE,SCHWAGER,WALTER	9/82	SF
R1TPPSF	TRYPSIN/P-AMIDINO-PHENYL-PYRUVATE	WALTER,BODE,HUBER	9/82	SF
R4PTISF	TRYPSIN INHIBITOR(BOVINE,PANCREAS)	R.HUBER,J.DEISENHOFER	9/82	SF
R2PTCSF	TRYPSIN/TRYPSIN INHIBITOR COMPLEX	R.HUBER,J.DEISENHOFER	9/82	SF
R1TPASF	TRYPSIN(ANHYDRO)/TRYPSIN INHIBITOR	HUBER,BODE,DEISENHOFER	9/82	SF
R2TGASF	TRYPSINOGEN(2.4M MGSO4)	J.WALTER,R.HUBER	10/81	SF
R1TGCSF	TRYPSINOGEN(.5 CH3OH,.5 HOH)	J.WALTER,R.HUBER	10/81	SF
R1TGTSF	TRYPSINOGEN(173 DEG K,.7 CH3OH,.3 HOH)	J.WALTER,R.HUBER	10/81	SF
R2TGTSF	TRYPSINOGEN(103 DEG K,.7 CH3OH,.3 HOH)	J.WALTER,R.HUBER	10/81	SF
R2TGPSF	TRYPSINOGEN/TRYPSIN INHIBITOR	R.HUBER ET AL.	9/82	SF
R3TP1SF	TRYPSINOGEN/TRYPSIN INHIBITOR/ILE-VAL	R.HUBER ET AL.	9/82	SF
R2TP1SF	TRYPSINOGEN/PTI/ILE-VAL (MERCURATED)	J.WALTER,R.HUBER	10/81	SF
R1TGSSF	TRYPSINOGEN/PSTI	R.HUBER ET AL.	9/82	SF

CODES

SF STRUCTURE FACTORS

TABLE 6. PROTEIN DATA BANK, STRUCTURE FACTOR HOLDINGS (PART 3, SEE ALSO TABLES 4,5)

12-JUN-85

IDENT CODE	MOLECULE	DEPOSITOR	DATE/ CODE	
R1CATSF	*CATALASE(BEEF LIVER)	M.ROSSMANN	11/81	SF
R4CHASF	ALPHA-CHYMOTRYPSIN(BOVINE)	H.TSUKADA,D.BLOW	11/84	SF
R2GCHSF	GAMMA-CHYMOTRYPSIN	COHEN,DAVIES,SILVERTON	7/84	SF
R1CYPSF	CYTOCHROME C PEROXIDASE(YEAST)	FINZEL,POULOS,KRAUT	11/83	SF
R2C2CSF	CYTOCHROME C2(OXIDIZED)	BHATIA,FINZEL,KRAUT	11/83	SF
R3C2CSF	CYTOCHROME C2(REDUCED)	BHATIA,FINZEL,KRAUT	11/83	SF
R6BNASF	DNA(B,CGCGAATTCGCG,SYNTHETIC)/NETROPSIN	M.KOPKA,R.DICKERSON	8/84	SF
R7BNASF	DNA(B,CGCGAATTCGCG,ANISO TEMP FACTORS)	HOLBROOK,DICKERSON,KIM	1/85	SF
R1FX1SF	FLAVODOXIN(D.VULGARIS,UNREFINED)	WATENPAUGH,SIEKR,JENSN	10/84	SF
R2HHBSF	HEMOGLOBIN(HUMAN,DEOXY)	G.FERMI,M.PERUTZ	3/84	SF
R1HHOSF	HEMOGLOBIN(HUMAN,OXY)	B.SHAANAN	3/84	SF
R1MCPSF	IGA FAB(KAPPA)MCPC603	G.COHEN ET AL.	7/84	SF
R2MCPSF	IGA FAB(KAPPA)MCPC603/PHOSPHOCHOLINE	PADLAN,COHEN,DAVIES	10/84	SF
R1PFCSF	*IGG PFC FRAGMENT	S.BRYANT ET AL.	4/85	SF
R1LZTSF	*LYSOZYME(HEN EGG-WHITE,TRICLINIC)	HOSON,BRAN,SIEKR,JENSN	4/85	SF
R1MBOSF	MYOGLOBIN(SPERM WHALE,OXY)	S.PHILLIPS	3/84	SF
R1PPDSF	PAPAIN D	J.JANSONIUS	10/84	SF
R3RP2SF	PROTEINASE II(RAT MAST CELL)	S.REMINGTON,B.MATTHEWS	9/84	SF
R5PTISFX	PTI(X-RAY)	A.WLODAWER,R.HUBER	10/84	SF
R5PTISFN	PTI(NEUTRON)	A.WLODAWER,R.HUBER	10/84	SF
R5RSASFX	*RIBONUCLEASE A(X-RAY)	A.WLODAWER	6/85	SF
R5RSASFN	*RIBONUCLEASE A(NEUTRON)	A.WLODAWER	6/85	SF
R5RXNSF	RUBREDOXIN(C.PASTEURIANUM)	WATENPAUGH,SIEKR,JENSN	10/84	SF
R2VSBSF	*VIRUS COAT PROTEIN(SBMV, T=1)	M.ROSSMANN	4/85	SF
R4SBVSF	*VIRUS COAT PROTEIN(SOUTHERN BEAN MOSAIC)	M.ROSSMANN	4/85	SF

* NEW OR REPLACEMENT ENTRY SINCE APR-85 NEWSLETTER

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TABLE 7. PROTEIN DATA BANK, ATOMIC COORDINATE HOLDINGS

12-JUN-85

IDENT CODE	MOLECULE	DEPOSITOR(S)	DATE/ STATUS	
2APE	ACID PROTEINASE(ENDOTHIA PARASITICA)	T.BLUNDELL	9/81	
2APP	ACID PROTEINASE(PENICILLIUMJANTHINELLUM)	A.SIELECKI,M.JAMES	1/83	
1APR	ACID PROTEINASE(RHIZOPUS CHINENSIS)	D.DAVIES	8/79	
2ACT	ACTINIDIN	E.BAKER	11/79	
1ACX	ACTINOXANTHIN	V.PLETNEV,A.KUZIN	12/82	
2ADK	ADENYLATE KINASE (PORCINE MUSCLE)	G.SCHULZ	3/77	
1AGA	AGAROSE	S.ARNOTT	5/78	
2WGA	AGGLUTININ (WHEAT GERM)	C.WRIGHT	5/80	
4ADH	ALCOHOL DEHYDROGENASE (APO)	C.-I.BRANDEN	8/79	
5ADH	ALCOHOL DEHYDROGENASE(APO)/ADP-RIBOSE	H.EKLUND,T.A.JONES	1/84	
6ADH	ALCOHOL DEHYDROGENASE(HOLO)/NADH/DMSO	H.EKLUND	1/84	
7ADH	ALCOHOL DEHYDRGNSE(ISONICOTINIMIDYLATED)	B.PLAPP,H.EKLUND	1/84	
2ALP	*ALPHA-LYTIC PROTEASE	M.FUJINAGA,M.JAMES	3/85	R
2TAA	TAKA-AMYLASE	KUSUNOKI,MATSUURA,KAKUDO	10/82	
5API	ALPHA 1-ANTITRYPSIN(MODIFIED,TETRAGONAL)	R.HUBER ET AL.	10/84	
6API	ALPHA 1-ANTITRYPSIN(MODIFIED,HEXAGONAL)	R.HUBER ET AL.	10/84	
1ABP	L-ARABINOSE-BINDING PROTEIN	F.QUIOCHO,G.GILLILAND	5/80	
1AAT	CYTOSOLIC ASPARTATE AMINOTRANSFERASE	HARUTYUNYAN,MALASHKEVICH	4/82	A
2ATC	ASPARTATE CARBAMOYLTRANSFERASE	W.LIPSCOMB	3/82	
4ATC	ASPARTATE CARBAMOYLTRANSFERASE	W.LIPSCOMB	4/84	
5ATC	ASPARTATE CARBAMOYLTRANSFERASE/CTP	W.LIPSCOMB	4/84	R
1AZA	AZURIN(ALCALIGENES DENITRIFICANS)	E.BAKER,G.NORRIS	5/84	
1AZU	AZURIN(PSEUDOMONAS AERUGINOSA)	E.ADMAN,L.SIEKER,L.JENSEN	8/80	
2BCL	BACTERIOCHLOROPHYLL A-PROTEIN	B.MATTHEWS	1/79	A
1ABX	ALPHA-BUNGAROTOXIN	D.AGARD,S.SPENCER,R.STROUD	4/80	A
1CPV	CALCIUM-BINDING PARVALBUMIN SET 6A	R.KRETSINGER	8/74	
2CPV	CALCIUM-BINDING PARVALBUMIN SET 6H	R.KRETSINGER	8/74	
3CPV	CALCIUM-BINDING PARVALBUMIN SET 6I	R.KRETSINGER	8/74	
1ICB	CALCIUM-BINDING PROTEIN(INTESTINAL)	D.SZEBENYI,K.MOFFAT	7/83	
1CAP	CAPSULAR POLYSACCHARIDE (E. COLI M41)	S.ARNOTT	5/78	
2CAB	CARBONIC ANHYDRASE B (HUMAN)	K.KANNAN	10/83	
1CAC	CARBONIC ANHYDRASE C (HUMAN)	K.KANNAN	5/76	
3CPA	CARBOXYPEPTIDASE A/GLYCYLTYROSINE	D.REES,W.LIPSCOMB	3/82	
4CPA	CARBOXYPEPTIDASE A/POTATO INHIBITOR	D.REES,W.LIPSCOMB	3/82	
5CPA	CARBOXYPEPTIDASE A/WATER (BOVINE)	D.REES,W.LIPSCOMB	5/82	
1CPB	CARBOXYPEPTIDASE B (BOVINE)	M.SCHMID,J.HERRIOTT	6/76	A
1CAR	CARRAGEENAN	S.ARNOTT	5/78	
7CAT	CATALASE(BEEF LIVER)	I.FITA,M.ROSSMANN	11/84	R
8CAT	CATALASE(BEEF LIVER)	I.FITA,M.ROSSMANN	11/84	R
4CAT	CATALASE(PENICILLIUM VITALE)	B.VAINSHTEIN ET AL.	2/83	B
1C4S	CHONDROITIN-4-SULFATE	S.ARNOTT	5/78	
2C4S	CHONDROITIN-4-SULFATE (CA SALT)	S.ARNOTT	5/78	
2CHA	ALPHA-CHYMOTRYPSIN (TOSYL)	D.BLOW	1/75	
4CHA	ALPHA-CHYMOTRYPSIN(BOVINE)	H.TSUKADA,D.BLOW	11/84	
5CHA	ALPHA-CHYMOTRYPSIN(BOVINE)	R.BLEVINS,A.TULINSKY	1/85	R
2GCH	GAMMA-CHYMOTRYPSIN	COHEN,DAVIES,SILVERTON	5/80	
1CHG	CHYMOTRYPSINOGEN	J.KRAUT,J.BIRKTOFT	3/75	
1CTS	CITRATE SYNTHASE(PIG)	REMINGTON,WIEGAND,HUBER	1/84	
2CTS	CITRATE SYNTHASE(PIG,COA,CITRATE CMPLX)	REMINGTON,WIEGAND,HUBER	1/84	
3CTS	CITRATE SYNTHASE(CHICKEN,COA,CITRATE)	REMINGTON,WIEGAND,HUBER	1/84	
4CTS	CITRATE SYNTHASE(PIG,OXALOACETATE CMPLX)	REMINGTON,WIEGAND,HUBER	1/84	
1CTX	ALPHA COBRATOXIN	W.SAENGER,M.WALKINSHAW	3/82	
2CNA	CONCANAVALIN A	G.REEKE,J.BECKER,G.EDELMAN	4/75	
3CNA	CONCANAVALIN A	K.HARDMAN	9/76	
1CN1	CONCANAVALIN A (DEMETALLIZED)	M.SHOHAM	12/81	
1CRN	CRAMBIN	W.HENDRICKSON,M.TEETER	5/81	
2B5C	CYTOCHROME B5 (OXIDIZED)	F.S.MATHEWS	12/77	
156B	CYTOCHROME B562 (E.COLI,OXIDIZED)	BETHGE,CZERWINSKI,MATHEWS	8/79	
3CYT	CYTOCHROME C (ALBACORE, OXIDIZED)	T.TAKANO,R.DICKERSON	7/80	
4CYT	CYTOCHROME C (ALBACORE, REDUCED)	T.TAKANO,R.DICKERSON	7/80	
1CYC	CYTOCHROME C (BONITO, HEART)	M.KAKUDO	8/76	
1CCR	CYTOCHROME C (RICE)	H.OCHI,N.TANAKA	3/83	
1CCY	CYTOCHROME C.PRIME.	P.WEBER,R.SALEMME	8/81	
1CYP	CYTOCHROME C PEROXIDASE(YEAST)	B.FINZEL,T.POULOS,J.KRAUT	11/83	
2C2C	CYTOCHROME C2(OXIDIZED)	G.BHATIA,B.FINZEL,J.KRAUT	11/83	
3C2C	CYTOCHROME C2(REDUCED)	G.BHATIA,B.FINZEL,J.KRAUT	11/83	
2CDV	CYTOCHROME C3(DESULFOVIBRIO VULGARIS)	N.YASUOKA,M.KAKUDO	11/83	
1CC5	CYTOCHROME C5(OXIDIZED,AZOTOBACTER VNLD)	C.D.STOUT,D.CARTER	8/84	
155C	CYTOCHROME C550	R.TIMKOVICH	8/76	
351C	CYTOCHROME C551 (OXIDIZED)	MATSUURA,TAKANO,DICKERSON	7/81	
451C	CYTOCHROME C551 (REDUCED)	MATSUURA,TAKANO,DICKERSON	7/81	
3DFR	DIHYDROFOLATE REDUCTASE (L.CASEI)	J.BOLIN,D.MATTHEWS,J.KRAUT	6/82	
4DFR	DIHYDROFOLATE REDUCTASE (E. COLI)	J.BOLIN,D.MATTHEWS,J.KRAUT	6/82	
1ANA	DNA(A,5(PRIME)-D-IODO-CCGG-3(PRIME))	B.CONNER,R.DICKERSON	6/82	
1BNA	DNA(B,CGCGAATTCGCG,SYNTHETIC,290 DEG K)	H.DREW,R.DICKERSON	1/81	
2BNA	DNA(B,CGCGAATTCGCG,SYNTHETIC,16 DEG K)	H.DREW,R.DICKERSON	11/81	
3BNA	DNA(B,9-BR-CGCGAATTCGCG,SYNTH,20 DEG C)	KOPKA,FRATINI,DICKERSON	2/82	
4BNA	DNA(B,9-BR-CGCGAATTCGCG,SYNTH, 7 DEG C)	KOPKA,FRATINI,DICKERSON	2/82	
5BNA	DNA(B,CGCGAATTCGCG,SYNTHETIC)/CISPLATIN	WING,PJURA,DREW,DICKERSON	8/83	
6BNA	DNA(B,9-BR-CGCGAATTCGCG,SYNTH)/NETROPSIN	M.KOPKA,R.DICKERSON	8/84	
7BNA	*DNA(B,CGCGAATTCGCG,ANISO TEMP FACTORS)	HOLBROOK,DICKERSON,KIM	1/85	
1ZNA	DNA(Z',CGCG,HIGH-SALT,SYNTHETIC)	H.DREW,R.DICKERSON	1/81	
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	
2FD1	FERREDOXIN (AZOTOBACTER VINELANDII)	STOUT,GHOSH,FUREY,ODONNELL	11/81	
1FDX	FERREDOXIN (PEPTOCOCCUS AEROGENES)	E.ADMAN,L.SIEKER,L.JENSEN	8/76	
3FXC	FERREDOXIN (SPIRULINA PLATENSIS)	TSUKIHARA,KATSUBE,KAKUDO	12/81	
3FXN	FLAVODOXIN (CLOSTRIDIUM MP,OXIDIZED)	M.LUDWIG	12/77	
4FXN	FLAVODOXIN (CLOSTRIDIUM MP,SEMIQUINONE)	M.LUDWIG	12/77	
1FX1	FLAVODOXIN(D.VULGARIS,UNREFINED)	WATENPAUGH,SIEKER,JENSEN	10/84	
1GBP	GALACTOSE-BINDING PROTEIN	S.MOWBRAY,G.PETSKO	8/83	A
1GCN	GLUCAGON	T.BLUNDELL	10/77	
1PG1	GLUCOSE-6-PHOSPHATE ISOMERASE	H.MUIRHEAD	7/77	A
2GRS	GLUTATHIONE REDUCTASE (HUMAN)	G.SCHULZ	11/81	
1GPD	GLYCERALDEHYDE-3-P-DEHYDROGENASE(LOBSTR)	M.ROSSMANN	7/75	
2GPD	APO-GLYCERALDEHYDE-3-P-DEHYDROGENASE	M.ROSSMANN	12/79	
3GPD	GLYCERALDEHYDE-3-P-DEHYDROGENASE(HUMAN)	H.WATSON,J.CAMPBELL	6/83	
1HRB	HEMERYTHRIN B	W.HENDRICKSON	6/76	A
1HMQ	HEMERYTHRIN(MET)	STENKAMP,SIEKER,JENSEN	2/83	
1HMZ	HEMERYTHRIN(AZIDO,MET)	STENKAMP,SIEKER,JENSEN	2/83	
1HR3	HEMERYTHRIN(AZIDO,MET,SIPHONOSOMA)	SMITH,HENDRICKSON,ADDISON	5/83	
1HDS	HEMOGLOBIN (DEER, SICKLE CELL)	E.AMMA,R.GIRLING	10/79	
2MHB	HEMOGLOBIN (HORSE, AQUO MET)	R.LADNER,HEIDNER,PERUTZ	2/77	
2DHB	HEMOGLOBIN (HORSE, DEOXY)	M.PERUTZ,G.FERMI	11/73	
2HHB	HEMOGLOBIN(HUMAN,DEOXY)	G.FERMI,M.PERUTZ	3/84	R
3HHB	HEMOGLOBIN(HUMAN,DEOXY,SYMMETRY AVRGD)	G.FERMI,M.PERUTZ	3/84	R
4HHB	HEMOGLOBIN(HUMAN,DEOXY,UNRESTRAINED)	G.FERMI,M.PERUTZ	3/84	R
1HCO	HEMOGLOBIN(HUMAN,CARBONMONOXY)	J.BALDWIN	8/79	
2HCO	HEMOGLOBIN(HUMAN,CARBONMONOXY,NRG REFND)	J.BALDWIN	8/79	
1HHO	HEMOGLOBIN (HUMAN, OXY)	B.SHAANAN	6/83	
1FDH	HEMOGLOBIN (HUMAN, FETAL, DEOXY)	J.FRIER	8/76	
1HBS	HEMOGLOBIN S (HUMAN,SICKLE CELL)	E.PADLAN,W.LOVE	6/82	
1LHB	HEMOGLOBIN (LAMPREY)	HENDRICKSON,LOVE,KARLE	3/73	
2YHX	HEXOKINASE (YEAST) FORM B||||	STEITZ,ANDERSON,STENKAMP	3/78	
1HKG	HEXOKINASE A - GLUCOSE COMPLEX (YEAST)	W.BENNETT JR.,T.STEITZ	12/80	
1HIP	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	
1MCP	IGA FAB(KAPPA)MCPC603	SATOW,COHEN,PADLAN,DAVIES	7/84	
2MCP	IGA FAB(KAPPA)MCPC603/PHOSPHOCHOLINE	E.PADLAN,G.COHEN,D.DAVIES	10/84	
1FB4	IMMUNOGLOBULIN FAB (LAMBDA) KOL	M.MARQUART,R.HUBER	5/83	
3FAB	IMMUNOGLOBULIN FAB.PRIME. NEW	R.POLJAK	9/81	
1MCG	IMMUNOGLOBULIN G-J INTACT MCG	SCHIFFER,EDMUNDSON ET AL.	5/78	A
1REI	IMMUNOGLOBULIN G-J FRAGMENT(V-DIMER)REI	D.EPP,R.HUBER	3/76	
2HFE	IMMUNOGLOBULIN G-J FRAGMENT(V-MNMER)RHE	FUREY,WANG,YOO,SAX	6/83	
1FC1	IMMUNOGLOBULIN FC (HUMAN)	J.DEISENHOFER	5/81	
1FC2	IMMUNOGLOBULIN FC-FRAGMENT B COMPLEX	J.DEISENHOFER	5/81	
1PFC	IGG PFC FRAGMENT	L.M.AMZEL	10/81	
1IG2	IMMUNOGLOBULIN G1 (LAMBDA) KOL	M.MARQUART,R.HUBER	5/83	
1INS	INSULIN(PORCINE,2-ZINC)	G.DODSON,D.HODGKIN	7/80	
2INS	INSULIN(BOVINE,2-ZINC) DES-PHE B1	C.REYNOLDS,G.DODSON	5/82	
2PKA	KALLIKREIN A(PORCINE)	W.BODE,Z.CHEN	5/84	
2KAI	KALLIKREIN A(PORCINE)/PTI(BOVINE)	W.BODE,Z.CHEN	5/84	
1KGA	KDPG ALDOLASE	A.TULINSKY	8/78	A
1KES	KERATAN SULFATE	S.ARNOTT	5/78	
4LDH	LACTATE DEHYDROGENASE (DOGFISH)	W.EVENTOFF,M.ROSSMANN	4/77	
3LDH	LACTATE DEHYDROGENASE/NAD/PYRUVATE(DOGF)	M.ROSSMANN	11/74	
5LDH	LACTATE DEHYDROGENASE/S-LAC/NAD (PIG)	U.GRAU,M.ROSSMANN	10/80	
1LDX	LACTATE DEHYDROGENASE (MOUSE TESTES)	W.MUSICK,M.ROSSMANN	9/78	
1LH1	LEGHEMOGLOBIN(ACETATE MET)	VAINSHTEIN,HARUTYUNYAN	4/82	
2LH1	LEGHEMOGLOBIN(ACETATE MET)	VAINSHTEIN,HARUTYUNYAN	4/82	
1LH2	LEGHEMOGLOBIN(AQUO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	
2LH2	LEGHEMOGLOBIN(AQUO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	
1LH3	LEGHEMOGLOBIN(CYANO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	
2LH3	LEGHEMOGLOBIN(CYANO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	
1LH4	LEGHEMOGLOBIN(DEOXY)	VAINSHTEIN,HARUTYUNYAN	4/82	
2LH4	LEGHEMOGLOBIN(DEOXY)	VAINSHTEIN,HARUTYUNYAN	4/82	
1LH5	LEGHEMOGLOBIN(FLUORO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	
2LH5	LEGHEMOGLOBIN(FLUORO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	
1LH6	LEGHEMOGLOBIN(NICOTINATE MET)	VAINSHTEIN,HARUTYUNYAN	4/82	
2LH6	LEGHEMOGLOBIN(NICOTINATE MET)	VAINSHTEIN,HARUTYUNYAN	4/82	
1LH7	LEGHEMOGLOBIN(FERRO)/NITROSOBENZENE	VAINSHTEIN,HARUTYUNYAN	4/82	
2LH7	LEGHEMOGLOBIN(FERRO)/NITROSOBENZENE	VAINSHTEIN,HARUTYUNYAN	4/82	
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 RS5D)	R.DIAMOND,D.PHILLIPS	2/75	
3LYZ	LYSOZYME (HEN EGG-WHITE, SET RS6A)	R.DIAMOND,D.PHILLIPS	2/75	
4LYZ	LYSOZYME (HEN EGG-WHITE, SET RS9A)	R.DIAMOND,D.PHILLIPS	2/75	
5LYZ	LYSOZYME (HEN EGG-WHITE, SET RS12A)	R.DIAMOND,D.PHILLIPS	2/75	
6LYZ	LYSOZYME (HEN EGG-WHITE, SET RS16)	R.DIAMOND,D.PHILLIPS	2/75	
7LYZ	LYSOZYME (HEN EGG-WHITE, TRICLINIC)	A.YONATH	5/77	
1LZT	*LYSOZYME(HEN EGG-WHITE,TRICLINIC)	HODSDON,BROWN,SIEKER,JENSN	4/85	
8LYZ	LYSOZYME (HEN EGG-WHITE, INACTIVATED)	S.OATLEY	9/77	
9LYZ	LYSOZYME(HEN,NAM-NAG-NAM SUBSTRATE ONLY)	J.KELLY,M.JAMES	12/79	
1LZH	LYSOZYME (HEN EGG-WHITE,MONOCLINIC)	ARTYMIUK,BLAKE,RICE,WILSON	6/81	A
2LZH	LYSOZYME (HEN EGG-WHITE,ORTHORHOMBIC)	ARTYMIUK,BLAKE,RICE,WILSON	6/81	A
1LYM	LYSOZYME(HEN EGG-WHITE,MONOCLINIC)	HOGLE,RAO,SUNDARALINGAM	7/82	
1LZ1	LYSOZYME(HUMAN)	P.ARTYMIUK,C.BLAKE	10/84	
1LZ2	LYSOZYME (TURKEY EGG-WHITE)	R.BOTT,R.SARMA	9/81	A
2MDH	MALATE DEHYDROGENASE	J.BIRKTOFT,L.BANASZAK	3/83	
1MLT	MELITTIN	TERWILLIGER,EISENBERG	8/81	
1MT2	*CD,ZN METALLOTHIONEIN(ISOFORM II)	C.STOUT	6/85	
1MBS	MYOGLOBIN (SEAL, MET)	H.SCOULOUDI	3/79	
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	
1MBD	MYOGLOBIN (SPERM WHALE, DEOXY)	S.PHILLIPS	8/81	
1MBO	MYOGLOBIN (SPERM WHALE, OXY)	S.PHILLIPS	8/81	
1MB5	MYOGLOBIN(SPERM WHALE,CO,NEUTRON)	HANSON,NORVELL,SCHOENBORN	11/82	
1MHR	MYOHEMERYTHRIN	W.HENDRICKSON	6/76	A
1NXB	NEUROTOXIN B (LATICAUDA SEMIFASCIATA)	D.TSERNOGLOU,G.PETSKO	8/80	
1SN3	SCORPION NEUROTOXIN(VARIANT 3)	C.BUGG ET AL.	12/82	
1OVO	OVOMUCOID THIRD DOMAIN(JAPANESE QUAIL)	E.PAPAMOKOS,R.HUBER	1/82	
1PPT	AVIAN PANCREATIC POLYPEPTIDE	T.BLUNDELL	1/81	
8PAP	PAPAIN (NATIVE)	J.DRENTH	11/76	
1PAD	PAPAIN (ACE-ALA-ALA-PHE-ALA, CYS-25)	J.DRENTH	11/76	
2PAD	PAPAIN (CYS DERIV OF CYS-25)	J.DRENTH	11/76	
3PAD	PAPAIN (OXIDIZED CYS-25)	J.DRENTH	11/76	
4PAD	PAPAIN (TOS-LYS, CYS-25)	J.DRENTH	11/76	
5PAD	PAPAIN (BZOXY-GLY-PHE-GLY, CYS-25)	J.DRENTH	11/76	
6PAD	PAPAIN (BZOXY-PHE-ALA, CYS-25)	J.DRENTH	11/76	
1PPD	PAPAIN D	J.JANSONIUS	10/84	
1PEP	PEPSIN (PORCINE)	N.ANDREEVA ET AL.	7/78	A
3PGK	PHOSPHOGLYCERATE KINASE (YEAST)	H.WATSON	7/82	
2PGK	PHOSPHOGLYCERATE KINASE (HORSE)	P.EVANS,C.BLAKE	9/76	B
3PGM	PHOSPHOGLYCERATE MUTASE	H.WATSON	4/82	
1BP2	PHOSPHOLIPASE A2 (BOVINE)	B.DIJKSTRA,J.DRENTH	9/81	
2BP2	PROPHOSPHOLIPASE A2 (BOVINE)	B.DIJKSTRA,W.HOL,J.DRENTH	6/81	
3BP2	PHOSPHOLIPASE A2 (BOVINE) TRANSAMINATED	B.DIJKSTRA,J.DRENTH	6/83	
1P2P	PHOSPHOLIPASE A2 (PORCINE)	B.DIJKSTRA ET AL.	6/83	
1PCY	PLASTOCYANIN(POPLAR,CU2+)	J.GUSS,H.FREEMAN	8/80	
2PCY	PLASTOCYANIN(POPLAR,APO)	GARRETT,GUSS,FREEMAN	11/83	
2PAB	PREALBUMIN (HUMAN, PLASMA)	S.OATLEY,C.BLAKE	9/77	
2SGA	PROTEINASE A(STREPTOMYCES GRISEUS)	M.JAMES,A.SIELECKI	1/83	
3SGB	PROTEINASE B(STREP. GRISEUS)/OMTKY3	A.SIELECKI ET AL.	1/83	
3RP2	PROTEINASE I|(RAT MAST CELL)	S.REMINGTON,B.MATTHEWS	9/84	
1PYP	INORGANIC PYROPHOSPHATASE	E.HARUTYUNYAN ET AL.	2/83	
1PYK	PYRUVATE KINASE (CAT)	H.MUIRHEAD	1/80	A
1RHD	RHODANESE	W.HOL	12/77	
5RSA	*RIBONUCLEASE A (X-RAY+NEUTRON)	A.WLODAWER	4/85	
1RN3	RIBONUCLEASE A	BORKAKOTI,MOSS,PALMER	10/81	
1RNS	RIBONUCLEASE S	H.WYCKOFF,F.RICHARDS	4/73	
4RXN	RUBREDOXIN(C.PASTEURIANUM,UNCONSTR REF)	WATENPAUGH,SIEKER,JENSEN	10/84	R
5RXN	RUBREDOXIN(C.PASTEURIANUM,NRG+XTAL REF)	K.WATENPAUGH	10/84	R
3RXN	RUBREDOXIN(DESULFOVIBRIO VULGARIS)	E.ADMAN,L.SIEKER,L.JENSEN	9/80	
2SNS	STAPHYLOCOCCAL NUCLEASE	M.LEGG,F.A.COTTON,E.HAZEN	5/82	
2SSI	SUBTILISIN INHIBITOR (STREPTOMYCES)	Y.MITSUI ET AL.	4/80	
1SBT	SUBTILISIN BPN.PRIME.	J.KRAUT	8/72	
2SBT	SUBTILISIN NOVO	J.DRENTH	9/76	
1SIC	SUBTILISIN BPN(PRIME)/SSI COMPLEX	Y.MITSUI ET AL.	4/84	A
2SOD	SUPEROXIDE DISMUTASE	J.RICHARDSON,D.RICHARDSON	3/80	
3TLN	THERMOLYSIN(NATIVE)	B.MATTHEWS,M.HOLMES	2/82	
4TLN	THERMOLYSIN(L-LEU-NHOH)	B.MATTHEWS,M.HOLMES	2/82	
5TLN	THERMOLYSIN(HONH-BZMALONYL-A-G-NTROANLD)	B.MATTHEWS,M.HOLMES	2/82	
7TLN	THERMOLYSIN(CH2CO(N-OH)LEUOCH3)	B.MATTHEWS,M.HOLMES	1/83	
1SRX	THIOREDOXIN (E. COLI, OXIDIZED)	B.-O.SODERBERG	5/76	A
4TNA	TRANSFER RNA (YEAST, PHE)	A.JACK,J.LADNER,A.KLUG	4/78	
6TNA	TRANSFER RNA (YEAST, PHE)	S.-H.KIM ET AL.	11/78	
8TNA	TRANSFER RNA (YEAST, PHE)	M.SUNDARALINGAM	2/79	
1TIM	TRIOSE PHOSPHATE ISOMERASE	I.WILSON,D.PHILLIPS	9/76	
2TNC	TROPONIN-C (TURKEY)	O.HERZBERG,M.JAMES	2/85	A
2PTN	TRYPSIN(ORTHORHOMBIC,2.4M (NH4)2SO4)	J.WALTER,R.HUBER,W.BODE	10/81	
1TPO	TRYPSIN(ORTHORHOMBIC)	W.BODE,J.WALTER,R.HUBER	9/82	
3PTN	TRYPSIN(TRIGONAL,2.4M (NH4)2SO4)	J.WALTER,R.HUBER,W.BODE	10/81	
3PTB	TRYPSIN(BENZAMIDINE INHIBITED)	W.BODE,P.SCHWAGER,J.WALTER	9/82	
1TPP	TRYPSIN/P-AMIDINO-PHENYL-PYRUVATE	J.WALTER,W.BODE,R.HUBER	9/82	
3PTP	TRYPSIN (DIP INHIBITED)	J.CHAMBERS,R.STROUD	12/77	
4PTI	TRYPSIN INHIBITOR(BOVINE,PANCREAS)	R.HUBER,J.DEISENHOFER	9/82	
5PTI	TRYPSIN INHIBITOR(BOVINE,XRAY+NEUTRON)	A.WLODAWER,R.HUBER	10/84	
2PTC	TRYPSIN/TRYPSIN INHIBITOR COMPLEX	R.HUBER,J.DEISENHOFER	9/82	
1TPA	TRYPSIN(ANHYDRO)/TRYPSIN INHIBITOR	HUBER,BODE,DEISENHOFER	9/82	
1TGN	TRYPSINOGEN	A.KOSSIAKOFF,R.STROUD	9/79	
2TGA	TRYPSINOGEN(2.4M MGSO4)	J.WALTER,R.HUBER,W.BODE	10/81	
1TGC	TRYPSINOGEN(.5 CH3OH, .5 HOH)	J.WALTER,R.HUBER,W.BODE	10/81	
1TGT	TRYPSINOGEN(173 DEG K,.7 CH3OH,.3 HOH)	J.WALTER,R.HUBER,W.BODE	10/81	
2TGT	TRYPSINOGEN(103 DEG K,.7 CH3OH,.3 HOH)	J.WALTER,R.HUBER,W.BODE	10/81	
1TGB	TRYPSINOGEN (WITH CA, FROM PEG)	BODE,FEHLHAMMER,HUBER	3/79	
2TGP	TRYPSINOGEN/TRYPSIN INHIBITOR	R.HUBER ET AL.	9/82	
3TPI	TRYPSINOGEN/TRYPSIN INHIBITOR/ILE-VAL	R.HUBER ET AL.	9/82	
2TPI	TRYPSINOGEN/PTI/ILE-VAL (MERCURATED)	J.WALTER,R.HUBER,W.BODE	10/81	
1TGS	TRYPSINOGEN/PSTI	R.HUBER ET AL.	9/82	
1TS1	TYROSYL TRANSFER RNA SYNTHETASE	BHAT,BLOW,BRICK,NYBORG	7/82	A
1GN5	GENE 5 DNA-UNWINDING PROTEIN(E.COLI)	A.MCPHERSON	11/84	
2STV	VIRUS (SATELLITE TOBACCO NECROSIS)	T.A.JONES,L.LILJAS	6/84	
4SBV	*VIRUS COAT PROTEIN(SOUTHERN BEAN MOSAIC)	M.ROSSMANN	4/85	R
2TBV	VIRUS (TOMATO BUSHY STUNT)	S.HARRISON	6/84	

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MODEL STRUCTURES

2ZNA	DNA(Z-I,CGCGCG,SYNTHETIC,MODEL)	A.RICH	2/81
3ZNA	DNA(Z-II,CGCGCG,SYNTHETIC,MODEL)	A.RICH	2/81
1DNN	DNA(ATCGGCTAAG...,MODEL)	J.SUSSMAN,E.TRIFONOV	11/82
1IGE	IMMUNOGLOBULIN E(FC FRAGMENT)MODEL	E.PADLAN,D.DAVIES	1/85
1GF1	INSULIN-LIKE GROWTH FACTOR I (MODEL)	BLUNDELL,BEDARKAR,HUMBEL	12/82
1GF2	INSULIN-LIKE GROWTH FACTOR II (MODEL)	BLUNDELL,BEDARKAR,HUMBEL	12/82
1MLP	MUREIN LIPOPROTEIN (MODEL)	A.MCLACHLAN	8/78
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
1TNC	TROPONIN (CA-BINDING COMPONENT,MODEL)	R.KRETSINGER,C.D.BARRY	6/80 A

* NEW OR REPLACEMENT ENTRY SINCE APR-85 NEWSLETTER

STATUS CODES

BLANK	STANDARD ENTRY AVAILABLE FOR DISTRIBUTION
A	ALPHA CARBON ATOMS ONLY
B	BACKBONE ONLY
R	RECENT (1984-1985) REPLACEMENT FOR AN OUT-OF-DATE PARAMETER SET

TABLE 8. COORDINATE AND STRUCTURE FACTOR ENTRIES IN PREPARATION

12-JUN-85

1CY3	*CYTOCHROME C3	R.HASER,M.FREY,F.PAYAN	6/85	P
1GP1	*GLUTATHIONE PEROXIDASE(BOVINE)	O.EPP,R.LADENSTEIN	6/85	P
2OVO	*OVOMUCOID THIRD DOMAIN(SILVER PHEASANT)	W.BODE,O.EPP	6/85	N
9TNA	*TRANSFER RNA(YEAST,ASP)	WESTHOF,DUMAS,MORAS	6/85	N
4TP1	*TRYPSINOGEN/ARG-15-PTI/VAL-VAL	W.BODE,J.WALTER	6/85	N
R1GPISF	*GLUTATHIONE PEROXIDASE(BOVINE)	O.EPP,R.LADENSTEIN	6/85	SF
R2OVOSF	*OVOMUCOID THIRD DOMAIN(SILVER PHEASANT)	W.BODE,O.EPP	6085	SF

* NEW OR REPLACEMENT ENTRY SINCE APR-85 NEWSLETTER

STATUS CODES

A	ALPHA CARBON ATOMS ONLY
B	BACKBONE ONLY
N	NEW ENTRY AWAITING APPROVAL BY DEPOSITOR
P	IN PREPARATION
R	REPLACEMENT FOR ENTRY IN TABLE 7
SF	STRUCTURE FACTORS

TABLE 9. PROTEIN DATA BANK, BIBLIOGRAPHIC ENTRIES

12-JUN-85

0EAP	ACID PROTEINASE (ENDOTHIA PARASITICA)
0ADC	ADH-NADH-DIMETHYLSULFOXIDE COMPLEX
0AF1	APOFERRITIN (HORSE)
0MAA	MITOCHONDRIAL ASPARTATE AMINOTRANSFERASE
0RNB	BARNASE (BACILLUS AMYLOLIQUEFACIENS)
0CDI	CALOTROPIN DI (CALOTROPIS GIGANTEA)
0PTE	D-ALANYL-CARBOXYPEPTIDASE-TRANSPEPTIDASE
0ZGP	D-ALANYL-D-ALANINE PEPTIDASE (ZN2+ G PEPTIDASE)
0GCI	*GAMMA-CHYMOTRYPSIN - INACTIVATOR COMPLEX
0CN2	CONCANAVALIN A (DEMETALLIZED)
0CRO	CRO REPRESSOR
0GCR	GAMMA-CRYSTALLIN II (CALF)
0CY3	CYTOCHROME C3 (DESULFOVIBRIO DESULFURICANS NORWAY)
05C1	CYTOCHROME C555 (CHLOROBIUM THIOSULFATOPHILUM)
0C3A	DES-ARG77-C3A ANAPHYLATOXIN
0CDF	DIHYDROFOLATE REDUCTASE (CHICKEN LIVER)
0ANB	DNA(GGTATACC)
0ANB	DNA(GG+UA+UACC)
0DP1	*DNA POLYMERASE I
0ESZ	ELASTASE COMPLEX (PIG)
0ETU	ELONGATION FACTOR TU COMPLEX (E. COLI)
0EBX	ERABUTOXIN B
0FX1	FERREDOXIN I(APHANOTHECE SACRUM)
0FX3	FLAVODOXIN(OXIDIZED,ANACYSTIS NIDULANS)
0FX2	FLAVODOXIN (REDUCED, CLOSTRIDIUM MP)
0GBP	D-GALACTOSE-BINDING PROTEIN(ESCHERICHIA COLI)
0GAP	CATABOLITE GENE ACTIVATOR PROTEIN
0GP1	GLUTATHIONE PEROXIDASE (BOVINE)
0GD1	D-GLYCERALDEHYDE 3-PHOSPHATE DEHYDROGENASE (BACILLUS STEAROTHERMOPHILUS)
0HMG	HEMAGGLUTININ
0HP1	HEMOCYANIN(PANULIRUS INTERRUPTUS)
0DCH	HEMOGLOBIN (COBALT,DEOXY)
0HBG	HEMOGLOBIN (GLYCERA DIBRANCHIATA)
0PHH	P-HYDROXYBENZOATE HYDROXYLASE (PSEUDOMONAS FLUORESCENS)
0AU1	IMMUNOGLOBULIN, BENCE-JONES FRAGMENT (KAPPA) AU
0ROY	IMMUNOGLOBULIN, BENCE-JONES FRAGMENT (V-MONOMER,KAPPA) ROY
0IG1	IMMUNOGLOBULIN G1 (KAPPA) DOB
0IN4	*INSULIN (HUMAN)
0IN1	INSULIN (PORCINE)
0IN2	INSULIN (PORCINE)
0IN3	DESPENTAPEPTIDE INSULIN(BEEF)
0LRP	N-TERMINAL DOMAIN OF LAMBDA REPRESSOR
0GLM	LYSOZYME(EMBDEN GOOSE)
0LZS	LYSOZYME (HEN EGG-WHITE, NEUTRON STUDY)
0LZT	LYSOZYME(HEN EGG-WHITE,HIGH-TEMPERATURE)
0LZ6	LYSOZYME (STREPTOMYCES ERYTHRAEUS)
0TEL	LYSOZYME(TORTOISE EGG-WHITE)
0CTF	L7/L12 (E. COLI, C-TERMINUS)
0B2M	*BETA2-MICROGLOBULIN
0MBA	MYOGLOBIN (APLYSIA LIMACINA)
0MBM	MYOGLOBIN (SPERM WHALE, MET, TEMPERATURE STUDIES)
0MB3	MYOGLOBIN (SPERM WHALE, MET, NEUTRON STUDY)
0PFK	PHOSPHOFRUCTOKINASE (BACILLUS STEAROTHERMOPHILUS)
0PP2	PHOSPHOLIPASE A2 (RATTLESNAKE)
0PPA	PHOSPHORYLASE A (RABBIT)
0PB1	PHOSPHORYLASE B (RABBIT)
0RX5	RELAXIN (PORCINE, MODEL)
0RSA	RIBONUCLEASE A (BOVINE)
0RBS	RIBONUCLEASE(BOVINE SEMINAL)
0RB1	RIBONUCLEASE B1(BINASE)
0RST	RIBONUCLEASE ST (STREPTOMYCES ERYTHREUS)
0RNT	RIBONUCLEASE T1-2(PRIME)-GUANYLIC ACID (ASPERGILLUS ORYZAE)
0SBP	*SULFATE-BINDING PROTEIN
0SDE	FE-SUPEROXIDE DISMUTASE(ESCHERICHIA COLI)
0SDP	FE-SUPEROXIDE DISMUTASE(PSEUDOMONAS OVALIS)
0THI	*THAUMATIN
0TT4	THIOREDOXIN REDUCTASE (BACTERIOPHAGE T4)
0FMT	INITIATOR TRANSFER RNA (E. COLI, F/MET)
0TA1	TRANSFER RNA (YEAST, ASP, A FORM)
0TA2	TRANSFER RNA (YEAST, ASP, B FORM)
0TR1	TRANSFER RNA (YEAST, PHE)
0MTS	METHIONYL TRANSFER RNA SYNTHETASE
0YP1	TRIOSE PHOSPHATE ISOMERASE (SACCHAROMYCES CEREVISIAE)
0UTG	UTEROGLOBIN (RABBIT)
0TMV	VIRUS PROTEIN DISK (TOBACCO MOSAIC)

* NEW OR REPLACEMENT ENTRY SINCE APR-85 NEWSLETTER

TABLE 10. SUBSTANTIVE CORRECTIONS TO COORDINATE ENTRIES AND PROGRAMS

12-JUN-85

THE CORRECTIONS IN THIS TABLE ARE GIVEN IN THE FORM OF 'UPDATE' MODIFICATIONS, AND CONSIST OF 'UPDATE' DIRECTIVES PLUS NEW DATA RECORDS THAT ARE TO BE INSERTED OR THAT REPLACE ERRONEOUS RECORDS IN CERTAIN DATA BANK ENTRIES. 'UPDATE' IS THE CDC LIBRARY-FILE MANAGEMENT SYSTEM UNDER WHICH THE MASTER PROTEIN DATA BANK FILE IS MAINTAINED. FOR A DESCRIPTION OF 'UPDATE' USERS ARE REFERRED TO THE 'UPDATE REFERENCE MANUAL' PUBLICATION NUMBER 60342500, CONTROL DATA CORPORATION, ARDEN HILLS, MN, 1974. BRIEFLY, EACH DATA ENTRY IS GIVEN AN IDENTIFICATION CODE WHICH ALSO SERVES AS THE UPDATE 'DECK' NAME. EACH RECORD IN THE FILE IS IDENTIFIED WITH TWO TAGS. THE FIRST TAG IS SIMPLY THE 'DECK' NAME (OR AN 'IDENT' NAME -SEE BELOW) AND THE SECOND IS A SEQUENCE NUMBER WITHIN THE 'DECK' (OR 'IDENT'). THESE TAGS ARE INCLUDED IN CHARACTERS 73-80 OF THE RECORDS IN EACH DATA ENTRY AS DISTRIBUTED.

CORRECTIONS MAY BE MADE USING 'UPDATE' DIRECTIVES TO 'INSERT' NEW RECORDS OR 'DELETE' OLD ONES. EACH CORRECTION SET BEGINS WITH A '*IDENT' DIRECTIVE. THIS IDENTIFIES THE CORRECTION SET, E.G. AS '1MBNA' FOR THE (CHRONOLOGICALLY) FIRST CORRECTION TO DECK '1MBN' FOR SPERM-WHALE MYOGLOBIN, '1MBNB' FOR THE SECOND CORRECTION, ETC. '*DELETE' DIRECTIVES SPECIFY A RECORD OR INCLUSIVE RUN OF RECORDS TO BE DELETED. IF DATA RECORDS OCCUR IMMEDIATELY FOLLOWING '*DELETE', THESE ARE TO BE INSERTED IN PLACE OF THE RECORDS DELETED. '*INSERT' DIRECTIVES ARE USED TO SPECIFY A PARTICULAR RECORD AFTER WHICH INFORMATION IS TO BE INSERTED. THE RECORDS TO BE INSERTED FOLLOW IMMEDIATELY AFTER '*INSERT' IN THE CORRECTION SET. WITHIN EACH CORRECTION NEW RECORDS PLACED IN THE FILE ARE GIVEN THE 'IDENT' NAME AND NUMBERED SEQUENTIALLY.

```
*IDENT,3ATCC
*INSERT,3ATCB.6
REMARK   8
REMARK   8 CORRECTION. THIS ENTRY IS OBSOLETE.  02-JAN-85.
*INSERT,3ATC.9
REVDAT   4   02-JAN-85 3ATCC   3       OBSLTE
*INSERT,3ATC.3
OBSLTE     02-JAN-85 3ATC      5ATC
*DELETE,3ATCB.7
MASTER       65    9    2   24   40    0   10    9 7056    4   10   72

*IDENT,2PTNC
*INSERT,2PTNB.16
REMARK   7
REMARK   7 CORRECTION. CHANGE RESIDUE 165 FROM ASN TO ASP AND CHANGE
REMARK   7  RESIDUE 186 FROM GLN TO GLU, UPON DEPOSITORS INSTRUCTIONS.
REMARK   7  REVISE ATOM AND SEQRES RECORDS ACCORDINGLY.  14-MAR-85.
*INSERT,2PTN.7
REVDAT   4   14-MAR-85 2PTNC   3       SEQRES ATOM
*DELETE,2PTN.78
SEQRES  12   223  SER ASP SER SER CYS LYS SER ALA TYR PRO GLY GLN ILE
*DELETE,2PTN.79
SEQRES  13   223  THR SER ASN MET PHE CYS ALA GLY TYR LEU GLU GLY GLY
*DELETE,2PTN.1164,1171
ATOM   1059  N   ASP   165       8.778   6.408   4.722  1.00 24.78
ATOM   1060  CA  ASP   165       9.557   7.637   4.878  1.00 24.78
ATOM   1061  C   ASP   165       9.210   8.667   3.803  1.00 24.78
ATOM   1062  O   ASP   165       9.016   9.871   4.104  1.00 24.78
ATOM   1063  CB  ASP   165      11.028   7.228   4.718  1.00 24.78
ATOM   1064  CG  ASP   165      11.909   8.467   4.639  0.00  0.00    1
ATOM   1065  OD1 ASP   165      12.700   8.702   5.586  0.00  0.00    1
ATOM   1066  OD2 ASP   165      12.111   8.896   3.410  0.00  0.00    1
*DELETE,2PTN.1325,1333
ATOM   1220  N   GLU   186      -5.754   8.910   3.770  1.00 26.16
ATOM   1221  CA  GLU   186      -7.166   9.210   3.492  1.00 26.16
ATOM   1222  C   GLU   186      -7.801   9.986   4.643  1.00 26.16
ATOM   1223  O   GLU   186      -6.841  10.672   4.477  1.00 26.16
ATOM   1224  CB  GLU   186      -7.907   7.873   3.289  1.00 26.16
ATOM   1225  CG  GLU   186      -9.375   8.068   2.884  1.00 50.77
ATOM   1226  CD  GLU   186      -9.937   6.736   2.396  1.00 50.77
ATOM   1227  OE1 GLU   186      -9.363   6.126   1.457  0.00  0.00    1
ATOM   1228  OE2 GLU   186     -11.160   6.467   2.803  0.00  0.00    1
*DELETE,2PTNB.17
MASTER       68    2    1    3    0    0    0    6 1712    1   20   18

*IDENT,2TGPE    *IDENT,3PTND   *IDENT,1TGTC   *IDENT,1TGSD   *IDENT,2PTCD
*IDENT,1TPAE    *IDENT,3TPIE   *IDENT,1TPOC   *IDENT,1TGCC   *IDENT,2TPIE
*IDENT,3PTBD    *IDENT,1TGBG   *IDENT,1TPPC   *IDENT,2TGAC   *IDENT,2TGTC
                               .
                               . SEE 2PTN ABOVE
                               .

*IDENT,3CHAK
*INSERT,3CHAJ.6
REMARK  16
REMARK  16 CORRECTION. THIS ENTRY IS OBSOLETE.  01-APR-85.
*INSERT,3CHA.3
OBSLTE     01-APR-85 3CHA      5CHA
*INSERT,3CHAD.3
REVDAT  12   01-APR-85 3CHAK   3       OBSLTE
*DELETE,3CHAJ.7
MASTER       88    0    0    1   14    0    0    9 1733    2   10   19

*IDENT,2RXNJ
*INSERT,2RXNI.4
REMARK  19
REMARK  19 CORRECTION. THIS ENTRY IS OBSOLETE.  01-APR-85.
*INSERT,2RXN.3
OBSLTE     01-APR-85 2RXN      4RXN 5RXN
*INSERT,2RXND.1
REVDAT  11   01-APR-85 2RXNJ   3       OBSLTE
*DELETE,2RXNI.5
MASTER      119    0    1    0    0    0    0    6  557    1    5    5

*IDENT,4DFRE
*INSERT,4DFRD.4
REMARK  16
REMARK  16 CORRECTION. CORRECT CONECT RECORDS FOR MTX.  12-JUL-85.
*INSERT,4DFR.8
REVDAT   6   12-JUL-85 4DFRE   2       CONECT
*DELETE,4DFR.3332
CONECT 1295 1294 1296 1300
*DELETE,4DFR.3334
CONECT 1297 1298 1302 1303
*DELETE,4DFR.3337
CONECT 1300 1295 1299 1301
*DELETE,4DFR.3340
CONECT 1303 1297 1304 1305
*DELETE,4DFR.3343
CONECT 1306 1305 1307 1310
*DELETE,4DFR.3374
CONECT 2853 2852 2854 2858
*DELETE,4DFR.3376
CONECT 2855 2856 2860 2861
*DELETE,4DFR.3379
CONECT 2858 2853 2857 2859
*DELETE,4DFR.3382
CONECT 2861 2855 2862 2863
*DELETE,4DFRD.5
MASTER      147    8    5    8   16   24   16    9 3041    2   84   26

*IDENT,3CATD
*INSERT,3CATC.7
REMARK  10
REMARK  10 CORRECTION. THIS ENTRY IS OBSOLETE.  01-APR-85.
*INSERT,3CAT.3
OBSLTE     01-APR-85 3CAT      7CAT 8CAT
*INSERT,3CAT.6
REVDAT   5   01-APR-85 3CATD   3       OBSLTE
*DELETE,3CATC.8
MASTER       71    0    1   13    9    0    0    9 4029    0   43   39
```

ORDER FORM (Please include a self-addressed label)

1. Name _____ Date _____

   Address _____ Telephone _____

   _____

   _____

2. Documentation desired (no charge).
   - ( ) Latest Newsletter
   - ( ) Introduction to The Protein Data Bank (January 1984)
   - ( ) Sources of Visual Aids for Macromolecular Structure (October 1984)
   - ( ) Atomic Coordinate and Bibliographic Entry Format Description for DATAPRTP and DATAPRFI (January 1985)
   - ( ) Current DATAPRTP Directory
   - ( ) Non-Standard Entries (Structure Factors) Format Description
     - ( ) NONST1TP and NONST1FI (April 1985)
     - ( ) NONST2TP and NONST2FI (July 1985)
     - ( ) NONST3TP and NONST3FI (July 1985)
   - ( ) Data Deposition form

3. Please send the following magnetic tape items (from Table 1). Each 1-tape item costs $184 (£153 from Cambridge). Each 2-tape item costs $225 (£188). Each 3-tape item costs $266 (£222). Domestic postage is included.

Item	Number of Tapes	Cost

Total _____

Special Instructions (to be completed for Brookhaven requests only). Please check the appropriate box.

( ) We are especially interested in the pending entries with the following Ident Codes: _____ _____ _____. Please delay shipment until the date _____ if any of these entries are expected to be available by that date.

( ) Normal order-will be processed as soon as possible.

4. Tape format desired (all tapes are unlabelled)

	Availability US	Availability UK
( ) 9 track, 6250 cpi, EBCDIC	yes	yes
( ) 9 track, 1600 cpi, EBCDIC	yes	yes
( ) 9 track, 800 cpi, EBCDIC	yes	yes
( ) 9 track, 6250 cpi, ASCII	yes	yes
( ) 9 track, 1600 cpi, ASCII	yes	yes
( ) 9 track, 800 cpi, ASCII	yes	yes

All tapes are distributed in blocked form with fixed record length and block size. Brookhaven normally uses a block size of 4800 characters. Please indicate here any difficulties this might cause.

5. Please send the following microfiche items (from Table 2). Each microfiche item costs $150 (£125), postage included. Correction fiche are free.

Item	Cost

Total _____

6. Please send the following printed listings. Each listing costs $71 (£59), postage included.

Ident Code (From Table 7)	Cost

Total _____

7. Foreign air mail postage for tapes from Brookhaven to destinations outside the U. S. and Canada or from Cambridge to destinations outside the United Kingdom. A postage surcharge of $20 (£17) is required per item.

Number of items x $20.00 (£17) = _____

8. Total charges

Magnetic tape charges (3 above) _____
Microfiche charges (5 above) _____
Printed listing charges (6 above) _____
Foreign air mail postage charges (7 above) _____

Total _____

Method of Payment:

Cambridge: Cambridge prefers that no check is sent with order. Inclusion of purchase order is desirable but not mandatory.

Brookhaven: Brookhaven requires that either a check or written purchase order payable to Brookhaven National Laboratory be received before service is provided.

( ) check
( ) purchase order number _____

is ( ) enclosed
( ) sent separately

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

It is advisable to send a photocopy of this order form directly to the center filling the order; experience shows that purchasing departments often do not forward this form with the order.