

BIBLIOGRAPHY

B I B L I O G R A P H Y

1. D.E. Koshland (Jr), Adv. Enzymol., 22, 45 (1960).
2. J. Sri Ram, M. Bier and P.H. Maurer, Adv. Enzymol.,
24, 105 (1962).
3. S.J. Singer, Adv. Protein Chem., 22, 1 (1967).
4. J.D. Bernal, Discuss, Faraday Soc., 25, 7 (1958).
5. H. Brown, F. Sanger and R. Kitai, Biochem. J., 60, 556 (1955).
6. R.E. Canfield, J. Biol. Chem., 238, 2698 (1963).
7. C.H.W. Hirs, S. Moore and W.H. Stein, J. Biol. Chem.,
235, 633 (1960).
8. D.H. Spackman, W.H. Stein and S. Moore, J. Biol. Chem.,
235, 648 (1960).
9. A.B. Edmundson and C.H.W. Hirs, Nature, 190, 663 (1961).
10. G. Braunitzer, N. Hilschmann, V. Rudloff, K. Hilse,
B. Liebold and R. Muller, Nature, 190, 480 (1961).
11. B.S. Hartley, Nature, 201, 1284 (1964).
12. B.S. Hartley, J.R. Brown, D.L. Kauffman and L.B. Smillie,
Nature, 207, 1157 (1965).
13. E. Margoliash, J. Biol. Chem., 237, 2161 (1962).
14. D.M. Shotton, B.S. Hartley, Nature, 225, 802 (1970).
15. V.M. Ingram, Nature, 180, 326 (1957).
16. C.B. Anfinsen and R.R. Redfield, Adv. Protein Chem.,
11, 1 (1956).
17. L. Pauling and R.B. Corey, Proc. Natl. Acad. Sci. U.S.A.,
37, 205, 729 (1951).
18. C.C.F. Blake, D.F. Koemig, G.A. Mair, A.C.T. North,
D.C. Phillips and V.R. Sarma, Nature, 206, 757 (1965).

19. N. Greenfield, B. Davidson and G.D. Fasman, Biochemistry, 6, 1630 (1967).
20. K.U. Linderstrom-Lang and J.A. Schellman in the Enzymes, Vol 1, p. 443, ed; by Boyer, Lardy and Myrback, Acad. Press (1959).
21. J.C. Gerhart and A.B. Pardee, J. Biol. Chem., 237, 891 (1962).
22. J.C. Gerhart and H.K. Schachman, Biochemistry, 4, 1054 (1965).
23. D.E. Koshland (Jr), in the Enzymes, 2nd ed., Vol 1, p.305 ed. by Boyer, Lardy and Myrback, Acad. Press, (1959).
24. D.E. Koshland (Jr), Proc. Natl. Acad. Sci. U.S.A., 44, 98 (1958).
25. D.E. Koshland (Jr), J. Cellular Comp. Physiol., 54, 359 (1959).
26. D.E. Koshland (Jr) and K.E. Neet, Ann. Rev. Biochem., 37, 359 (1968).
27. H.E. Umbarger, Science, 146, 674 (1964).
28. R.A. Yates and A.B. Pardee, J. Biol. Chem., 221, 757 (1956).
29. J. Monod, J.P. Changeux and F. Jacob, J. Mol. Biol., 6, 306 (1963).
30. J.S. Hubbard and E.R. Stadtman, J. Bacteriol., 93, 1045 (1967).
31. B.M. Shapiro and E.R. Stadtman, J. Biol. Chem., 242, 5069 (1967).
32. A. Larsson and P. Reichard, J. Biol. Chem., 241, 2533, 2540 (1960).
33. N.C. Brown, A. Larsson and P. Reichard, J. Biol. Chem., 242, 4272 (1967).
34. L. Stryer, A. Holmgren and P. Reichard, Biochemistry, 6, 1016 (1967).

35. J.C. Gerhart and H.K. Schachman, *Biochemistry*, 7, 538 (1968).
36. J.P. Changeux, J.C. Gerhart and H.K. Schachman, *Biochemistry*, 7, 531 (1968).
37. D.W. Green, V.M. Ingram and M.F. Perutz, *Proc. Roy. Soc. A*, 225, 287 (1954).
38. G. Kartha, J. Bello, D. Hardman and D. Harker, *Nature*, 213, 862 (1967).
39. H.W. Wyckoff, K.D. Hardman, N.M. Allewell, T. Inagami, L.N. Johnson and F.M. Richards, *J. Biol. Chem.*, 242, 3984 (1967).
40. D.G. Smyth, W.H. Stein and S. Moore, *J. Biol. Chem.*, 238, 227 (1963).
41. B.W. Matthews, P.B. Sigler, R. Henderson and D.M. Blow, *Nature*, 214, 652 (1967).
42. J. Kraut, H.T. Wright, M. Kellerman and S.T. Freer, *Proc. Natl. Acad. Sci. U.S.A.*, 58, 304 (1967).
43. J.C. Kendrew, *Brookhaven Symp.*, 16, 216 (1962).
44. J.C. Kendrew, *Sci. Am.*, 205, 96 Dec., (1961).
45. M.F. Perutz, M.G. Rossmann, A.F. Cullis, H. Muirhead, G. Will and A.C.T. North, *Nature*, 185, 416 (1960).
46. H. Muirhead and M.F. Perutz, *Nature*, 199, 633 (1963).
47. M.F. Perutz, *Sci. Am.*, 211, 64, Nov., (1964).
48. H. Muirhead, J. Cox, L. Mazzarella and M.F. Perutz, *J. Mol. Biol.*, 27, 117 (1967).
49. D.C. Phillips, *Sci. Am.*, 215, 78, Nov., (1966).
50. D.C. Phillips, *Proc. Natl. Acad. Sci. U.S.A.*, 57, 484 (1967).
51. C.C.F. Blake, L.N. Johnson, G.A. Mair, A.C.T. North, D.C. Phillips and V.R. Sarma, *Proc. Roy. Soc.*, 167 B, 378 (1967).

52. M.L. Ludwig, J.A. Hartsuck, T.A. Steitz, H. Muirhead, J.C. Copola, G.N. Reeke, and W.N. Lipscomb, Proc. Natl. Acad. Sci. U.S.A., 57, 511 (1967).
53. T.A. Steitz, M.L. Ludwig, F.A. Quiocho and W.N. Lipscomb, J. Biol. Chem., 242, 4662 (1967).
54. G.N. Reeke, J.A. Hartsuck, M.L. Ludwig, F.A. Quiocho, T.A. Steitz and W.N. Lipscomb, Proc. Natl. Acad. Sci. U.S.A., 58, 2220 (1967).
55. K. Fridborg, K.K. Kannan, A. Liljas, J. Lundin, B. Strandberg, R. Strandberg, B. Tilander and G. Wiren, J. Mol. Biol., 25, 505 (1967).
56. J. Drenth, J. Jansonius and B.G. Wolthers, J. Mol. Biol., 24, 449 (1967).
57. R.E. Dickerson, M.L. Kopka, J. Weinzierl, J. Varnum D. Eisenberg and E. Margoliash, J. Biol. Chem., 242, 3015 (1967).
58. H.C. Watson, D.M. Shotton, J.M. Cox and H. Muirhead, Nature, 225, 806 (1970).
59. D.M. Shotton and H.C. Watson, Nature, 225, 111 (1970).
60. V. Jagannathan and J.M. Luck, J. Biol. Chem., 179, 569 (1949).
61. L. Anderson and G.R. Jolles, Arch. Biochem. Biophys., 70, 121 (1957).
62. E.F. Jansen, M.D.F. Nutting, R. Jang and A.K. Balls, J. Biol. Chem., 179, 189 (1949).
63. A.K. Balls and E.F. Jansen, Adv. Enzymol., 13, 321 (1952).
64. M.E. Koshland, F. Englberger and D.E. Koshland (jr) Proc. Natl. Acad. Sci. U.S.A., 45, 1470 (1959).
65. G. Schoellmann and E. Shaw, Biochemistry, 2, 252 (1963).

66. L. Wofsy, H. Metzger and S.J. Singer, *Biochemistry*, 1, 1031 (1962).
67. H. Fraenkel - Conrat, *Methods in enzymology*, 4, 247 (1957), ed., by S.P. Colowick and N.O. Kaplan.
68. *Methods in Enzymology*, 11, 481 - 605 (1967) ed., by C.H.W. Hirs.
69. P. Jolles, *Proc. Roy. Soc.*, 167 B, 350 (1967).
70. C.C.F. Blake, G.A. Mair, A.C.T. North, D.C. Phillips and V.R. Sarma, *Proc. Roy. Soc.*, 167 B, 365 (1967).
71. N. yamasaki, K. Hayashi and M. Funatsu, *Agr. Biol. Chem.*, 32, 64 (1968).
72. P. Jolles, *Angew. Chem.*, 3, 28 (1964).
73. S. Gurnani, *J. Sci. Industr. Res.*, 28, 126 (1969).
74. J. Jolle's, J. Jauregui-Adell, I. Bernier and P. Jolle's *Biochim. Biophys. Acta*, 78, 668 (1963).
75. R.E. Canfield and S. Mcmurry, *Biochem. Biophys. Res. Commun.*, 26, 38 (1967).
76. L.N. Johnson and D.C. Phillips, *Nature*, 206, 761 (1965).
77. J.W. Donovan, M. Laskowski (Jr) and H. Scheraga, *J. Am. Chem. Soc.*, 82, 2154 (1960).
78. E.H. Frieden, *J. Am. Chem. Soc.*, 78, 961 (1956).
79. H. Fugio, S. Kishigachi, A. Shinka, Y. Saiki and T. Amano, *Biken's J.*, 2, 56 (1959).
80. Tsau-Yen Lin and D.E. Koshland (Jr), *J. Biol. Chem.*, 244, 505 (1969).
81. Y. Inada, *J. Biochem., Tokyo*, 49, 217 (1961).
82. K. Kurihara, H. Morinishi and K. Shibata, *Biochim. Biophys. Acta*, 74, 678 (1963).
83. I. Covelli and J. Wolff, *Biochemistry*, 5, 860 (1966).

84. J. Wolff and I. Covelli, *Biochemistry*, 5, 867 (1966).
85. E.J. Williams, T.T. Herskovits and M. Laskowski (Jr)
J. Biol. Chem., 240, 3574, 3580 (1965).
86. F.J. Hartdegen and J.A. Rupley, *J. Am. Chem. Soc.*,
89, 1743 (1967).
87. F.J. Hartdegen and J.A. Rupley, *Biochem. Biophys. Acta*,
92, 625 (1964).
88. J.A. Rupley, *Biochim. Biophys. Acta*, 83, 245 (1964).
89. J.A. Rupley, *Proc. Roy. Soc.*, 167B, 416 (1967).
90. C.C.F. Blake, *Proc. Roy. Soc.*, 167B, 435 (1967).
91. A. Previero, M.A. Coletti-Previero and P. Jolles,
Biochem. Biophys. Res. Commun., 22, 17 (1966).
92. A. Previero, M.A. Coletti-Previero and P. Jolles,
J. Mol. Biol., 24, 261 (1967).
93. G.J.S. Rao and L.K. Ramachandran, *Biochim. Biophys.*
Acta, 59, 507 (1962).
94. K. Hayashi, T. Imoto, G. Funatsu and M. Funatsu,
J. Biochem., Tokyo, 58, 227 (1965).
95. T. Takahashi, K. Hamaguchi, K. Hayashi, T. Imoto
and M. Funatsu, *J. Biochem.*, Tokyo, 58, 385 (1965).
96. M.J. Kronman, F.M. Robbins and R.E. Andreotti,
Biochim. Biophys. Acta, 147, 462 (1967).
97. K. Hayashi, M. Kugimiya, T. Imoto, M. Funatsu and
C.C. Bigelow, *Biochemistry*, 7, 1467 (1968).
98. K. Nakaya, H. Horinishi and K. Shibata, *J. Biochem.*,
Tokyo, 61, 337, 345 (1967).
99. T.P. King, *Biochemistry*, 5, 3454 (1966).
100. R.C. Davies and A. Neuberger, *Biochim. Biophys. Acta*,
178, 306 (1969).

101. N.A. Kravchenko, G.V. Kleopina and E.D. Kaverzneva,
Biochim. Biophys. Acta, 92, 412 (1964).
102. M.R. Bruzzesi, E. Chiancone and E. Antonini,
Biochemistry, 4, 1796 (1965).
103. E. Chiancone, M.R. Bruzzesi and E. Antonini,
Biochemistry, 5, 2823 (1966).
104. A.J. Sophianopoulos and K.E. Van-Holde, J. Biol. Chem.,
239, 2516 (1964).
105. J. Jolles, G. Spotorno and P. Jolles, Nature, 208,
1204 (1965).
106. M.P. Venkatappa and L.K. Steinrauf, Proceedings,
International Symposium on Conformation of
Biopolymers Vol.I, ed., by G.N. Ramachandran
(Academic Press Inc. New York), 27, (1967).
107. C. Wauters and J. Leonis, Chromatog. Symp.,
2nd Brussels, 125 (1962).
108. A. Matsushima, Y. Hachimori, Y. Inada and K. Shibata,
J. Biochem., Tokyo, 61, 328 (1967).
109. T. Yoshimura, A. Imanishi and T. Isemura,
J. Biochem., Tokyo, 63, 730 (1968).
110. W.F. Benisek, and F.M. Richards, J. Biol. Chem.,
243, 4267 (1968).
111. I.I. Geschwind and C.H. Li, Biochim. Biophys. Acta,
25, 171 (1957).
112. H. Fraenkel-Conrat, Arch. Biochim. Biophys. Acta,
27, 109 (1950).
113. C.B. Hiremath and R.A. Day, J. Am. Chem. Soc.,
86, 5027 (1964).
114. D.J. Herzig, A.N. Rees and R.A. Day, Biopolymers,
2, 349 (1964).

115. G.L. Moore and R.A. Day, *Science*, N.Y., 159, 210 (1968).
116. A.F.S.A. Habeeb and M.Z. Atassi, *Fed. Proc. Abstracts*, 29, Abstract No. 3622 (1970).
117. J. Jolles and P. Jolles, *Biochim. Biophys. Res. Commun.*, 22, 22 (1966).
118. L. Weil, A.R. Buchert and J. Maher, *Arch. Biochem. Biophys.*, 40, 245 (1952).
119. J.E. Churchich, *Biochim. Biophys. Acta*, 65, 349 (1962).
120. K. Imai, T. Takagi and T. Isemura, *J. Biochem.*, Tokyo, 53, 1 (1963).
121. J. Jauregui-Adell and P. Jolles, *Bull. Soc. Chim. Biol.*, 46, 141 (1964).
122. S.R. Dickman, R.B. Kropf, and C.M. Proctor, *J. Biol. Chem.*, 210, 491 (1954).
123. S. Gurnani, *Photochem. Photobiol.*, 8, 159 (1968).
124. Y. Hachimori, H. Horinishi, K. Kurihara and K. Shibata, *Biochim. Biophys. Acta*, 93, 346 (1964).
125. F. Sanger, *Biochem. J.*, 39, 507 (1945).
126. R.R. Porter and F. Sanger, *Biochem. J.*, 42, 287 (1948).
127. R.R. Porter, *Biochim. Biophys. Acta*, 2, 105 (1948).
128. F. Sanger, *Biochem. J.*, 45, 563 (1949).
129. W.A. Schroeder, *J. Am. Chem. Soc.*, 74, 5118 (1952).
130. C.H.W. Hirs, M. Halmann and J.H. Kycia, *Arch. Biochem. Biophys.*, 111, 209 (1965).
131. C.H.W. Hirs and J.H. Kycia, *Arch. Biochem. Biophys.*, 111, 223 (1965).
132. O.M. Rosen and S.M. Rosen, *Proc. Natl. Acad. Sci. U.S.A.*, 55, 1156 (1966).
133. P.T. Howley, O. Tchola and B.L. Horecker, *Arch. Biochem. Biophys.*, 107, 305 (1964).

134. J. Kowal, T. Cremona and B.L. Horecker,
J. Biol. Chem., 240, 2485 (1965).
135. S. Pontremoli, B. Luppis, W.A. Wood, S. Traniello and
B.L. Horecker, J. Biol. Chem., 240, 3464, 3472
(1965).
136. G. Philip and D.J. Graves, Biochemistry, 7, 2093 (1968).
137. R.W. Jones and J.E. Cluskey, Cereal Chem., 40, 589 (1963).
138. H. Fraenkel-Conrat, I.J. Harris and A.L. Levy,
Methods of Biochemical Analysis, 2, 359 (1955),
ed., by D. Glick.
139. O.H. Lowry, N.J. Rosebrough, A.L. Farr and R.J. Randall,
J. Biol. Chem., 193, 265 (1951).
140. A.J. Sophianopoulos, C.K. Rhodes, D.N. Holcomb and
K.E. Van-Holde, J. Biol. Chem., 237, 1107 (1962).
141. G. Litwack, Proc. Soc. Exptl. Biol. Med., 89, 401 (1955).
142. H.K. Schachman, Ultracentrifugation in Biochemistry,
Academic Press, N.Y., (1959).
143. H.H. Tallan and W.H. Stein, J. Biol. Chem., 200,
507 (1953).
144. J. Davies, Annals. N.Y. Acad. Sci., 121, 404 (1964).
145. R.A. Reisfeld, U.J. Lewis, D.E. Williams,
Nature, 195, 281 (1962).
146. L.V.S. Sastry and T.K. Virupaksha, Anal. Biochem.,
12, 505 (1967).
147. O. Smithies, Biochem. J., 61, 629 (1955).
148. O. Smithies, Biochem. J., 71, 585 (1959).
149. K. Murray, Anal. Biochem., 3, 415 (1962).
150. S. Moore and W.H. Stein, J. Biol. Chem., 176, 367 (1948).

151. J.R. Spies, Methods in Enzymology, 3, 468 (1957).
Ed; by S.P. Colowick and N.O. Kaperlan.
152. L. Mills, Chromatographic and Electrophoretic techniques,
1, 143 (1960). Ed; by I. Smith.
153. H. Fraenkel-Conrat, Biochim. Biophys. Acta, 10, 180 (1953).
154. M. Gutfreund, An Introduction to the study of enzymes,
Blackwell Sci. Publication, (1965).
155. Structure and stability of biological macromolecules,
Ed; by S.N. Timasheff^{and} G.D. Fasman, and M. Dekker,
Inc, N.Y., p. 147 (1969).
156. A. Neuberger and B.M. Wilson, Nature, 215, 524 (1967).
157. R.C. Davies, A. Neuberger and B.M. Wilson, Biochem.
Biophys. Acta, 178, 294 (1969).
158. N.A. Kravchnko, K.A. Kagramanova and Y.D. Kuznetsov,
Biochemistry (Trans from Russian), 32, (3) Part 2,
570 (1967).
159. M. Sela and L.A. Steiner, Biochemistry, 2, 416 (1963).
160. G. Alderton, W.H. Ward and H.L. Fevold, J. Biol. Chem.,
157, 43 (1945).
161. L.K. James (Jr) and D.A. Hilborn, Biochim. Biophys. Acta,
151, 279 (1968).
162. B. Jirgensons, Arch. Biochem. Biophys., 41, 333 (1953).
163. C. Tanford, The Physical Chemistry of macromolecules,
J.W. Willey (1961).
164. S.R. Dickman and C.M. Proctor, Arch. Biochem. Biophys.,
40, 364 (1952).
165. J. Leonis, Arch. Biochem. Biophys., 65, 182 (1956).
166. K.C. Aune and C. Tanford, Biochemistry, 8, 4579, 4586 (1969).
167. W. Altekar and S. Gurnani (Personal communication).

168. L.A. Cohen, *Ann. Rev. Biochem.*, 37, 695 (1968).
169. G.E. Perlmann, *Arch. Biochem. Biophys.*, 65, 210 (1956).
170. S. Gurnani, M. Arifuddin and P.M. Bhargava, *Indian J. Biochem.*, 5, 37 (1968).
171. M.S. Narasinga Rao and M.W. Pandit, *Biochim. Biophys. Acta*, 94, 238 (1965).
172. J.R. Whitaker, *Analytical Chem.*, 35, 1950 (1963).
173. G. Markus, *Proc. Natl. Acad. Sci., U.S.A.*, 54, 253 (1965).
174. J. Sriram and P.H. Maurer, *Arch. Biochem. Biophys.*, 76, 28 (1958).
175. M.S. Narasinga Rao, A.J. Sagar, N.S. Jahan and K.D.A. Prem-sagar, *Indian J. Biochem.*, 2, 47 (1965).
176. I.M. Klotz and N.R. Langerman, *Ann. Rev. Biochem.*, 39, 25 (1970).
177. A.R. Thompson, *Nature*, 168, 390 (1951).