REFERENCES

1. L.P.Hammett, *J.Am.Chem.Soc.,* **59**, 96 (1937).

2. L.P.Hammett, *Trans.Faraday Soc*., **34**, 156 ( 1938).

3. J.Shorter, *Correlation Analysis in Organic Chemistry*, Oxford University

Press, London,1973.

4. J.Shorter, *Multiparameter Extension to the Hammett Equation ln Correlation*

*Analysis in Chemistry*, (N.B.Chapman and J.Shorter Eds.),Plenum, London,

1978.

5. P.R.Wells*, Linear Free Energy Relationships*, Academic Press, London,

1968.

6. S.Ehrenson, R.T.C.Brownlee and R.W.Taft, Prog.Phys.Org.Chem., **10**, l

(1973).

7. N.B.Chapman and J.Shorter ( Eds*.) Correlation Analysis in Chemistry*,

Plenum, London, 1978.

8. H.H.Jaffe, *Chem.Rev*., , **53**, 191 (1953).

9. J.Shorter*, Correlation Analysis of Organic Reactivity with reference to*

*multiple regression*, Research studies press, New York, 1982.

10. L.P.Hammett*, Physical Organic Chemistry*, McGraw-Hill, New York, 1970.

11. J.E.Leffler and E.Grunwald, *Rates and equilibrium of Organic Reactions*,

Wiley, New York, 1963.

12. K.Bowden and K.Bromley, *J.Chem.Soc*., Perkin Trans.**2**,2103 (1990).

13. K.Bowden and S.J.Hirani, *J.Chem.Soc*., Perkin Trans.**2**, 1885 (1990).

14. C.D.Johnson, *The Hammett Equation*, University Press, Cambridge, 1973.

15. L.P.Hammett, *Physical Organic Chemistry*, McGraw-Hill Book Company,

Inc, New York, 186 (1940).

16. J.E.Leffler, *J.Chem.Phys*., **23**, 2199 ( 1955); **27**, 981 (1957).

17. A.Fischer and J.Vaughan, *J.Chem.Phys* . , **27**, 976 (1957).

18. P.D.Bolton, F.M.Hall and I.H.Reece, *J.Chem.Soc*.( B ), 709 (1967).

19. J.H.M.Hill and L.D.Schmookler, *J.Org.Chem*., **32**, 4025(1967).

20. R.A.Stairs, *Can.J.Chem*., **42**, 550 (1964).

21. J.F.J.Dippy, S.R.C. Hughes and B.C.Ketchiner *J.Chem.Soc*., 1275 (1964).

22. C.K.Hancock and E.Foldvary, *J.Org.Chem*., **30**,1180 (1965).

23. A.Buckley, N.B.Chapman, M.R.J.Dack, J.Shorter and H.M.Wall,

*J.Chem.Soc*.( B), 631 (1968).

24. K.Bowden, *Can.J.Chem*., **41**, 2781 (1963).

25. J.D.S.Ritter and S.I.Miller*, J.Am.Chem.Soc*., **86**, 1507 (1964).

26. A.B.Thigpen and R.Fuchs, *J.Org.Chem*., **34**, 505 (1969).

27. K.Bowden, N.B.Chapman and J.Shorter, *Can.J.Chem*., **42**, 1979 (1964).

28. R.A.More O'Ferrall and S.I.Miller, *J.Am.Chem.Soc*., **85**, 2440 (1963).

29. R.A.More O'Ferrall and S.I.Miller, *J.Am.Chem.Soc*., **86**, 4016 (1964).

30. R.O.C.Norman and P.D.Ralph, *J.Chem.Soc*., 5431 (1963).

31. D.J.Pasto, D.McMillan, I.T.Murphy, *J.Org.Chem*., **30**, 2688 (1965).

32. R.F.Brown and H.C.Newsom, *J.Org.Chem*., **27**, 3010 (1962).

33. H.Hogeveen, *Rec.Trav.Chim*., **83**, 813 (1964).

34. L.D.Pettit, A.Royston, C.Sherrington and R.J. Whewell *J.Chem.Soc*.( B ),

588 (1968).

35. A.Bryston, N.R.Davies and E.P.Sarieant- *J.Am.Chem.Soc*., **85**, 1933 (1963).

36. J.Deles, Roczniki Chem., **43**, 1165 (1969)

37. C.Srinivasan, A.Shunmugasundaram and N Arumugam, *Indian J.Chem*., **20B**,

467 ( 1981).

38. C.Srinivasan, A.Shunmugasundaram and N. Arumugam, *Indian J.Chem*. ,

**21B**, 355 ( 1982).

39. I.J.Solomon and Filler*, J.Am.Chem.Soc*., **85**, 3492 (1963).

40. H.Veschambre, G.Dauphin and A.Kergomard, *Bull.Soc.Chim*. France, 134

(1967).

41. H.Veschambre, G.Dauphin and A.Kergomard,*Bull.Soc.Chim*. France, 2846

(1967).

42. C.Earborn, R.Eastmond and D.R.M.Walton, *J.Chem.Soc*.( B), 752 (1970).

43. C.Earborn, R.Eastmond and D.R.M.Walton , *J.Chem.Soc*.( B ),127 (1971).

44. C.Srinivasan, A.Shunmugasundaram, M.Roja and N.Arumugam, *Indian*

*J.Chem*., **23B**, 546 (1984).

45. C.Srinivasan, P.Subramanian and A.Shunmugasundaram*, Indian J.Chem*.,

**25B**,1188 (1986).

46. H.C.Brown and Y.Okamoto, *J.Am.Chem.Soc*., **80**, 4979 (1958).

47. A.Shunmugasundaram and K.Radhakrishnan*, Indian J.Chem*. **26A**, 827

(1987).

48. A.Shunmugasundaram, S.Premsingh and T.Lekshmana Thanulingam,

*J.Chem.Research*(S), **124(M),** 980 (1991).

49. R.Murugesan, B.Rajasekar T.Lekshmana Thanulingam and

A.Shunmugasundaram, *Proc.Indian Acad.Sci.,(Chem.Sci.,)* **104**, 431 (1992).

50. Y.Yukawa and Y.Tsuno*, Bull.Chem.Soc*.*Japan*., **32**, 971 (1959).

51. M.Yoshioka, K.Hamamato and T.Kubota,Bull.*Chem.Soc*.*Japan*., **35** , 1723,

(1962).

52. R.W.Taft*, in Steric Effect in Organic Chemistry*,Ch.13 M.S.Newman ( Ed.),

Wiley, New York, 1956.

53. R.W.Taft and I.C.Lewis*, J.Am.Chem.Soc*., **80**, 2436 (1958).

54. R.W.Taft and I.C.Lewis, *J.Am.Chem.Soc*., **81**, 5343 (1959).

55. S.Ehrenson, *Prog.Phys.Org.Chem*., **2**, 195 (1964).

56. R.D.Topsom, *Prog.Phys.Org.Chem*., **12**, 1 (1975).

57. G.swain and E.C.Lupton, *J.Am.Chem.Soc*., **90**, 4328 (1968).

58. O.Exner, *Coll.Czech.Chem.Comm*., **31**, 65 (1966).

59. C.G.Swain, S.H.Unger, N.R.Rosenquist and M.S.Swain, *J.Am.Chem.Soc*.,

**105**,492 (1983).

60. Fujita and Nishioka, *Prog. Phys. Org. Chem.,* **49**, 1997 (1984).

61. Charton, *Prog. Phys. Org. Chem.,* **8**, 235-317 (1971).

62. R.W.Taft, Jr., M.S. Newman and F.H. Verhoek, J.Am.Chem.Soc.,**72**, 4511

(1950)

63. N.B.Chapman and J.Shorter, Eds. *Advances in Linear Free Energy*

*relationships,* Plenum Press, London, 1972.

64. M.M.Bursey, *Org.Mass Spectrom*., **1**, 31 (1968).

65. M.St.C.Fleet, *Trans.Faraday Soc*., **44**, 767 (1948).

66. R.N.Jones, W.F.Forbes and W.A.Mueller, *Can.J.Chem*., **35**, 504 (1957).

67. N.Fuson, M.L.Josien and E.M.Shelton, *J.Am.Chem.Soc*., **76**, 2526 (1954).

68. N.L.Silver and D.W.Boykin, Jr*., J.Org.Chem*., **35**, 759 (1970).

69. A.Cornells, S.Lambert, P.Laszlo and P.Schaws, *J.Org.Chem*., **46**, 2130

(1981).

70. C.Srinivasan and K.Pitchumani, *J.Magn.Reson*., **46**, 134 (1982).

71. C.Srinivasan, P.K.Ganesan and N.Arumugam, *Indian J.Chem*., **22B**, 646

(1983).

72. D.A.R.Happer and B.E.Steenson, *J.Chem.Soc*., *Perkin Trans* **2**, 843 (1983).

73. C.Srinivasan , A.Shunmugasundaram and N.Arumugam *Indian J.Chem*.,

**24B**, 827 (1985).

74. C.Srinivasan, P.K.Ganesan, A.Shunmugasundaram and N.Arumugam,

*Proc.Indian Acad.Sci., (Chem.Sci.,)* **97**, 33 (1986).

75. F.A.Bottina , G.Musumarra and Z.Rappoport, *Magn.Reson Chem*., **24**, 31

(1986).

76. R.Chandrasekaran, S.Perumal and D.A.Wilson.*Magn.Reson.Chem*., **25**, 1001

(1987); **27**, 360 (1989).

77. S.Perumal, R.Chandrasekaran , V.Viiavabaskar and A.Wilson,

*Magn.Reson.Chem*., **33**, 779 (1995).

78. I.Howe, in 'Mass spectrometry' , Vol.I Ch.2, D.H.Williams, Ed., *The*

*Chemical Society*, London 1971,I.Howe, in 'Mass Spectrometry ' Vol II.

Ch. 2, D.H.Williams, Ed., *The Chemical Society*, London, 1973.

79. M.M.Bursey, Ch.10 of the Ref.60.

80. T.W.Bentley and R.W.A.Johnstone, in ‘*Advances in Physical Organic*

*Chemistry* ', **8**, 229, V.Gold, Ed.,Academic Press, 1970.

81. C.Srinivasan, P.K.Ganesan, A.Shunmugasundaram and M.Vairamani, *Indian*

*J.Chem*., **28B**, 141 (1989).

82. F. W. Wehrlt and T. Wirthlin, ' *Interpretation of C-13 NMR Spectra’,*

Heyson and Sons, London, 32,1976.

83. J. Bromilow, R. T. C. Brownlee, D. J. Craik, P. R. Fiske,J. E. Rowe and M.

Sadek, *J. Chem. Soc. Perkin*., **2**, 753 (1981).

84. J. Bromilow, R. T. C. Brownlee and D. J. Craik, *Aust. J. Chem*., **30**,351

(1977).

85. D. J. Craik, R. T. C. Brownlee, *Prog. Phys. Org. Chem*., , **14**, 1 (1983).

86. Fathi H. Assaleh, Aleksandar D. Marinkovic, Bratislavz. Jovanovic and

Janos Csanadi, *J. Mol. Struct*., **833(1-3),** 53 (2007).

87. Natasa V. Valentic, Zeljko Vitnik, Sergei I. Kozhshkov, Armin deMeijere,

Gordana S. Uscumlic and Ivan O. Juranic, *J. Mol. Struct*.,**744-747**, 901

(2005).

88. Pal perjesi, Juha Linnanto, Erkki Kolehmainen, Erzsebet Osz and Elina

Virtanen,.*J . Mol. Struct*., **740(1-3)**, 81 (2005).

89. Stobodanka Jovanovic, Dusan Mijin, and Milica Misic-Vukovic,*ARKIVOC*,

116 2006 (X).

90. Natasa V. Valentic and Gordana s. Uscumlic*, J. Serb. Chem*. *Soc***. 68(7)**

525 (2003).

91. B. Z. Jovanovic, M. Misic-Vukovic, A. D. Marinkovic and J. Csanadi, *J.*

*Mol* *Struct*., **482-483**, 371 (1999).

92. Subbu Perumal, Rama subbu, Chandrasekaran and Veerappan Vijayabaskar

and David A. Wilson, *Magn. Resort. Chem*. **33**, 779 (1995).

93. J. B. Slothers, *Quart. Rev.,* (London) **19**, 144 (1965).

94. G. L. Nelson, G. C. Levy and J. D. Cargioli, *J. Am. Chem. Soc*., **94**, 3089

(1972).

95. H. Spieseck and W. G. Schneider*, J. Chem. Phys*., **35**, 731 (1961).

96. P. C. Lauterbur, *J. Am. Chem*. Soc., **83**, 1846 (1961).

97. E. M. Schulman, K. A. Christensen, D. M. Grant and C. Walling, *J. Org*.

*Chem*.,**39**, 2686 (1974).

98. G. E. Miciel and J. J. Natterstad, *J. Chem. Phy*., **42**, 2427 (1965).

99. E.F.Ewing, Ch.8 of the Ref.6

100. C.G.Swain and E.C.Lupton,*J.Am.Chem.Soc*.,**90**,4328 (1968).

101. S.Ehenson,R.T.C.Brownless and R.W.Taft, *Prog.Phys.Org.Chem*.,**10**,1

(1973).

102. Y.Yukawa and Y.Tsuno, *Bull.Chem.Soc.,Japan*,**32**,971 (1959).

103. P.Wells, *Prog.Org.Chem*.,**6**,111(1968).

104. D. J. Craik, R. T. C. Brownlee and M. Sadek, *J. Org. Chem*., **47**, 657

(1982).

105. A. Comelis, S. Lambert, P. Laszlo and P. Schaus, *J. Org. Chem*., **46**, 2130

(1981).

106. F. A. Bottino, G. Musumarra and Z. Rappoport, *Magn. Reson. Chem.,***24**,31

(1986).

107. C.C.E.Anu, T.J Clarkson and D.A.R. Happer, *J.Chem.Soc.Perkin* *Trans*., **2**,

635 (1990).

108. R. T. C. Brownlee, G. Batt, N. P. Chan and R. D. Topsom, *J. Chem. Soc.*

*Perkin Trans.,* **2***,*1486 (1976).

109. L. M. Stock, *J. Chem. Educ.,***49**, 400 (1972) and References therein.

110. R. Golden and L. M. Stock, *J. Am. Chem. Soc.,***94**, 3080 (1972).

111. C. L. Liotta, W. F. Fischer, G. H. Greene and B. L. Joyner, *J. Am. Chem*

*. Soc.,***94**, 4891 (1972).

112. T. W. Cole, G. J. Mayers and L. M. Stock, *J. Am. Chem. Soc.,* **96**, 4555

(1974).

113. a) Η. H. Jaffe, *J. Am. Chem. Soc.,*20, 279, 778 (1958).

b) Η. H. Jaffe, *J. Am. Chem. Soc*., **76**, 4261, 5843 (1954); **77**, 274 (1955).

114. W. A. Sheppard, *J. Am. Chem*. Soc.,**87**, 2410 (1965).

115. A. R. Katritzky and R. D. Topsom, J. Chem. Educ.,**48**, 427 (1971).

116. M. J. Shapiro, J. Org. Chem., **43**, 3769 (1978).

117. P.Zuman*, Prog*. *Phys.Org.Chem*., **5**, 161 ( 1967).

118. M.Fleischmann and D.Pletcher, *Prog.Phys.Org.Chem*., **10**, 206 (1973).

119. J.M.Bobbitt and W.P.John., *J.Org.Chem*., **45**, 1978 (1980).

120. N.F.Stephen, K.R.Carl, B.J.David and Weinhold Frank *J.Org.Chem*., **45**,

2116 (1980).

121. a) P.J.Michael and M.J.Thomas, *J.Am.Chem.Soc*. **102**,1289 (1980)

b) A.W. Addition, T.N.Rao and E. .Sinn, *Inorg Chem*.,**23** , 1957 (1984);

c) K.Yamaguchiand D.T.Sawyer*,Inorg. Chem*.,**24**, 971 (1985 );

d) S.A.Richert, P.K.S. Tsung and D.T.Sawyer, *Inorg.Chem*.,**27**,1814 (1988);

e) J.Chakravarthy and S.Battacharya, *Polyhedron*,**15**,257 (1996);

f ) J.Chakravarthy and S.Battacharya,*Polyhedron*,**15**,1047 (1996).

122. K.Kalyanasundaram, J.Kiwi and M.Gratzel, *Helv.chim.Acta*, **61** , 2720

(1978).

123. C.A.Rice and J.T.Spence, *Inorg.chem*., **19**, 2845 (1980).

124. J.B.Headridge,*Electrochemical Techniques for Inorganic Chemistry,*

Academic Press, London and New York, 1969.

125. D.R. Henton, R.L,MCCreery J.S.Swenton *J.Org.Chem*., **45**, 369 (1980).

126. P.Zuman, *Coll.Czech.Chem.Comm*., **25**, 3225 (1960).

127. G.A.Mabboff, *J.Chem.Educ*., **60**, 697 (1983).

128. P.T.Kissinger and W.R.Heineman*, J.Chem.Educ*., **60**, 702(1983).

129. P.T.Kissinger and D.A.Roston, *J.Chem.Educ*., **60**, 772(1983).

130. J.M.A.Empis and B.J.Herold, *J.Chem.Soc*., *Perkin Trans*.**2**,425 (1986).

131. G.M.Proudfoot and I.M.Pitchie, *Aust.J.Chem*., **36**, 885 (1983).

132. T.Sato, K.Torizuka, R.Komaki and H.Atobe, *J.Chem.Soc.,Perkin Trans*. **2**,

561 (1980).

133. S.J.Reddy and V.R.Krishnan, *Indian J.Chem*., **22A**, 800 (1983).

134. R.Saraswathi and R.Narayanan, *Proc. Indian Acad.Sci.(Chem.Sci.),* **97**, 403

(1986).

135. P.Venkata Ramana, D.Vasudevan and L.K.Ravindranath, *J.Indian*

*Chem.Soc*., **71**, 123 (1994).