



Figure index

Appendix: I(A): R.I. Vs. Composition Charts

Figure No	Contents	Page
For System involving mixed Solvent-(Dmf+W)		
Fig.E. 1-1 Plot of R.I. Vs. Composition for System:	B-H-Dmf at 20 °C	1
Fig.E. 1-2 Plot of R.I. Vs. Composition for System:	B-H-90%Dmf+10 %W at 20 °C	1
Fig.E. 1-3 Plot of R.I. Vs. Composition for System:	B-H-80%Dmf-20%Wat 20 °C .	1
Fig.E. 1-4 Plot of R.I. Vs. Composition for System:	B-H-Dmf at 30 °C	2
Fig.E. 1-5 Plot of R.I. Vs. Composition for System:	B-H-90%Dmf-10%Wat 30 °C	2
Fig.E. 1-6 Plot of R.I. Vs. Composition for System:	B-H-80%Dmf-20%Wat 30 °C	2
Fig.E. 1-7 Plot of R.I. Vs. Composition for System:	B-H-Dmf at 40 °C	3
Fig.E. 1-8 Plot of R.I. Vs. Composition for System:	B-H-90%Dmf-10%Wat 40 °C	3
Fig.E. 1-9 Plot of R.I. Vs. Composition for System:	B-H-80%Dmf-20%Wat 40 °C	3
Fig.E. 1-10 Plot of R.I. Vs. Composition for System:	T-H-Dmf at 20 °C	4
Fig.E. 1-11 Plot of R.I. Vs. Composition for System:	T-H-90%Dmf-10%Wat 20 °C	4
Fig.E. 1-12 Plot of R.I. Vs. Composition for System:	T-H-80%Dmf-20%Wat 20 °C	4
Fig.E. 1-13 Plot of R.I. Vs. Composition for System:	T-H-Dmf at 30 °C	5
Fig.E. 1-14 Plot of R.I. Vs. Composition for System:	T-H-90% Dmf -10%Wat 30 °C	5

Fig.E. 1-.15 Plot of R.I. Vs. Composition for System: T-H-80%Dmf-20%Wat 30 °C	5
Fig.E. 1-.16 Plot of R.I. Vs. Composition for System: T-H-Dmf at 40 °C	6
Fig.E. 1-.17 Plot of R.I. Vs. Composition for System: T-H-90% Dmf -10%Wat 40 °C	6
Fig.E. 1-.18 Plot of R.I. Vs. Composition for System: T-H-80%Dmf-20%Wat 40 °C	6
Fig.E. 1-.19 Plot of R.I. Vs. Composition for System: X-H-Dmf at 20 °C	7
Fig.E. 1-.20 Plot of R.I. Vs. Composition for System: X-H-90%Dmf-10%Wat 20 °C	7
Fig.E. 1-.21 Plot of R.I. Vs. Composition for System: X-H-80%Dmf-20%Wat 20 °C	7
Fig.E. 1-.22 Plot of R.I. Vs. Composition for System: X-H-Dmf at 30 °C	8
Fig.E. 1-.23 Plot of R.I. Vs. Composition for System: X-H-90%Dmf-10%W at 30 °C	8
Fig.E. 1-.24 Plot of R.I. Vs. Composition for System: X-H-80%Dmf-20%W at 30°C	8
Fig.E. 1-.25 Plot of R.I. Vs. Composition for System: X-H-100%Dmf-0%W at 40 °C	9
Fig.E. 1-.26 Plot of R.I. Vs. Composition for System: X-H-90%Dmf-10%W at 40 °C	9
Fig.E. 1-.27 Plot of R.I. Vs. Composition for System: X-H-80%Dmf-20%W at 40 °C	9
Fig.E. 1-.28 Plot of R.I. Vs. Composition for System: B-Hep-Dmf at 20 °C	10
Fig.E. 1-.29 Plot of R.I. Vs. Composition for System: B-Hep-90%Dmf-10%W at 20 °C	10
Fig.E. 1-.30 Plot of R.I. Vs. Composition for System: B-Hep-80%Dmf-20%W at 20 °C	10
Fig.E. 1-.31 Plot of R.I. Vs. Composition for System: B-Hep-Dmf at 30 °C	11

Fig.E. 1-32 Plot of R.I. Vs. Composition for System: B-Hep-90%Dmf-10%W at 30 °C	11
Fig.E. 1-33 Plot of R.I. Vs. Composition for System: B-Hep-80%Dmf-20%W at 30 °C	11
Fig.E. 1-34 Plot of R.I. Vs. Composition for System: B-Hept-Dmf at 40 °C	12
Fig.E. 1-35 Plot of R.I. Vs. Composition for System: B-Hept-90%Dmf-10%W at 40°C	12
Fig.E. 1-36 Plot of R.I. Vs. Composition for System: B-Hep-80%Dmf-20%W at 40 °C	12
Fig.E. 1-37 Plot of R.I. Vs. Composition for System: B-O-Dmf at 20 °C	13
Fig.E. 1-38 Plot of R.I. Vs. Composition for System: B - O -90%Dmf-10%W at 20 °C	13
Fig.E. 1-39 Plot of R.I. Vs. Composition for System: B- O -80%Dmf-20%W at 20 °C	13
Fig.E. 1-40 Plot of R.I. Vs. Composition for System: B-O-Dmf at 30 °C	14
Fig.E. 1-41 Plot of R.I. Vs. Composition for System: B-O-90%Dmf-10%W at 30 °C	14
Fig.E. 1-42 Plot of R.I. Vs. Composition for System: B-O-80%Dmf-20%W at 30 °C	14
Fig.E. 1-43 Plot of R.I. Vs. Composition for System: B-O-Dmf at 40 °C	15
Fig.E. 1-44 Plot of R.I. Vs. Composition for System: B-O-90%Dmf-10%W at 40 °C	15
Fig.E. 1-45 Plot of R.I. Vs. Composition for System: B-O-80%Dmf-20%W at 40 °C	15
Fig.R.1-1 Plot of R.I. Vs. Composition for System: B-H-Dmf 20 °C:	16
Fig.R.1-2 Plot of R.I. Vs. Composition for System: B-H-90%Dmf+10 % 20 °C	16

Fig.R.1-.3 Plot of R.I. Vs. Composition for System: B-H-80%Dmf-20%W at 20 °C	16
.Fig.R.1-.4 Plot of R.I. Vs. Composition for System: B-H-Dmf 30 °C	17
Fig.R.1-.5 Plot of R.I. Vs. Composition for System: B-H-90%Dmf-10%W at 30 °C	17
Fig.R.1-.6 Plot of R.I. Vs. Composition for System: B-H-80%Dmso-20%W at 30 °C	17
Fig.R.1-.7 Plot of R.I. Vs. Composition for System: B-H-Dmf at 40 °C	18
Fig.R.1-.8 Plot of R.I. Vs. Composition for System: B-H-90%Dmf-10%W at 40 °C	18
Fig.R.1-.9 Plot of R.I. Vs. Composition for System: B-H-80%Dmf-20%W at 40 °C	18
Fig.R.1-.10 Plot of R.I. Vs. Composition for System: T-H-Dmf at 20 °C	19
Fig.R.1-11 Plot of R.I. Vs. Composition for System: T-H-90%Dmf-10%W at 20 °C	19
Fig.R.1-.12 Plot of R.I. Vs. Composition for System: T-H-80%Dmf-20%W at 20 °C	19
Fig.R.1-.13 Plot of R.I. Vs. Composition for System: T-H-Dmf at 30 °C	20
Fig.R.1-.14 Plot of R.I. Vs. Composition for System: T-H-90%Mf-10%W at 30 °C	20
Fig.R.1-.15 Plot of R.I. Vs. Composition for System: T-H-80%Dmf-20%W at 30 °C	20
Fig.R.1-.16 Plot of R.I. Vs. Composition for System: T-H-Dmf at 40 °C	21
Fig.R.1-.17 Plot of R.I. Vs. Composition for System: T-H-90%Mf-10%W at 40 °C	21
Fig.R.1-.18 Plot of R.I. Vs. Composition for System: T-H-80%Dmf-20%W at 40 °C	21
Fig.R.1-.19 Plot of R.I. Vs. Composition for System: X-H-Dmf at 20 °C	22

Fig.R.1.-20 Plot of R.I. Vs. Composition for System: X-H-90%Dmf-10%W at 20 °C	22
Fig.R.1.-21 Plot of R.I. Vs. Composition for System: X-H-80%Dmf-20%W at 20 °C	22
Fig.R.1.-22 Plot of R.I. Vs. Composition for System: X-H-Dmf at 30 °C	23
Fig.R.1.-23 Plot of R.I. Vs. Composition for System: X-H-90%Dmf-10%W at 30 °C	23
Fig.R.1.-24 Plot of R.I. Vs. Composition for System: X-H-80%Dmf-20%W at 30°C	23
Fig.R.1.-25 Plot of R.I. Vs. Composition for System: X-H-100%Dmf-0%W at 40 °C	24
Fig.R.1.-26 Plot of R.I. Vs. Composition for System: X-H-90%Dmf-10%W at 40 °C	24
Fig.R.1.-27 Plot of R.I. Vs. Composition for System: X-H-80%Dmf-20%W at 40 °C	24
Fig.R.1.-28 Plot of R.I. Vs. Composition for System: B-Hep-Dmf at 20 °C	25
Fig.R.1.-29 Plot of R.I. Vs. Composition for System: B-Hep-90%Dmf-10%W at 20 °C	25
Fig.R.1.-30 Plot of R.I. Vs. Composition for System: B-Hep-80%Dmf-20%W at 20 °C	25
Fig.R.1.-31 Plot of R.I. Vs. Composition for System: B-Hep-Dmf at 30 °C	26
Fig.R.1.-32 Plot of R.I. Vs. Composition for System: B-Hep-90%Dmf-10%W at 30 °C	26
Fig.R.1.-33 Plot of R.I. Vs. Composition for System: B-Hep-80%Dmf-20%W at 30 °C	26
Fig.R.1.-34 Plot of R.I. Vs. Composition for System: B-Hept-Dmf at 40 °C	27
Fig.R.1.-35 Plot of R.I. Vs. Composition for System: B-Hept-90%Dmf-10%W at 40 °C	27
Fig.R.1.-36 Plot of R.I. Vs. Composition for System: B-Hep-80%Dmf-20%W at 40 °C	27

Fig.R.1-.37 Plot of R.I. Vs. Composition for System: B-O-Dmf at 20 °C	28
Fig.R.1-.38 Plot of R.I. Vs. Composition for System: B - O -90%Dmf-10%W at 20 °C	28
Fig.R.1-.39 Plot of R.I. Vs. Composition for System: B- O -80%Dmf-20%W at 20 °C	28
Fig.R.1-.40 Plot of R.I. Vs. Composition for System: B-O-Dmf at 30 °C	29
Fig.R.1-.41 Plot of R.I. Vs. Composition for System: B-O-90%Dmf-10%W at 30 °C	29
Fig.R.1-.42 Plot of R.I. Vs. Composition for System: B-O-80%Dmf-20%W at 30 °C	29
Fig.R.1-.43 Plot of R.I. Vs. Composition for System: B-O-Dmf at 40 °C	30
Fig.R.1-.44 Plot of R.I. Vs. Composition for System: B-O-90%Dmf-10%W at 40 °C	30
Fig.R.1-.45 Plot of R.I. Vs. Composition for System: B-O-80%Dmf-20%W at 40 °C	30
For System involving mixed Solvent-(Dmso +W)	
Fig.E. 2-.1 Plot of R.I. Vs. Composition for System: B-H-Dmso 20 °C	31
Fig.E. 2-.2 Plot of R.I. Vs. Composition for System: B-H-90%Dmso+10 % 20 °C	31
Fig.E. 2-.3 Plot of R.I. Vs. Composition for System: B-H-80%Dmso-20%W at 20 °C	31
Fig.E. 2-.4Plot of R.I. Vs. Composition for System: B-H-Dmso 30°C	32
Fig.E. 2-.5 Plot of R.I. Vs. Composition for System: B-H-90%Dmso-10%W at 30 °C	32
Fig.E. 2-.6 Plot of R.I. Vs. Composition for System: B-H-80%Dmso-20%W at 30 °C	32
Fig.E. 2-.7 Plot of R.I. Vs. Composition for System: B-H-Dmso at 40 °C	33

Fig.E. 2-.8 Plot of R.I. Vs. Composition for System: B-H-90%Dmso-10%W at 40 °C	33
Fig.E. 2-.9 Plot of R.I. Vs. Composition for System: B-H-80%Dmso-20%W at 40 °C	33
Fig.E. 2-.10 Plot of R.I. Vs. Composition for System: T-H-Dmso at 20 °C	34
Fig.E. 2-.11 Plot of R.I. Vs. Composition for System: T-H-90%Dmso-10%W at 20 °C	34
Fig.E. 2-.12 Plot of R.I. Vs. Composition for System: T-H-80%Dmso-20%W at 20 °C	34
Fig.E. 2-.13 Plot of R.I. Vs. Composition for System: T-H-Dmso at 30 °C	35
Fig.E. 2-.14 Plot of R.I. Vs. Composition for System: T-H-90% Dmso -10%W at 30 °C	35
Fig.E. 2-.15 Plot of R.I. Vs. Composition for System: T-H-80%Dmso-20%W at 30 °C	35
Fig.E. 2-.16 Plot of R.I. Vs. Composition for System: T-H-Dmso at 40 °C	36
Fig.E. 2-.17 Plot of R.I. Vs. Composition for System: T-H-90% Dmso -10%W at 40 °C	36
Fig.E. 2-.18 Plot of R.I. Vs. Composition for System: T-H-80%Dmso-20%W at 40 °C	36
Fig.E. 2-.19 Plot of R.I. Vs. Composition for System: X-H-Dmso at 20 °C	37
Fig.E. 2-.20 Plot of R.I. Vs. Composition for System: X-H-90%Dmso-10%W at 20 °C	37
Fig.E. 2-.21 Plot of R.I. Vs. Composition for System: X-H-80%Dmso-20%W at 20 °C	37
Fig.E. 2-.22 Plot of R.I. Vs. Composition for System: X-H-Dmso at 30 °C	38
Fig.E. 2-.23 Plot of R.I. Vs. Composition for System: X-H-90%Dmso-10%W at 30 °C	38
Fig.E. 2-.24 Plot of R.I. Vs. Composition for System: X-H-80%Dmso-20%W at 30°C	38

Fig.E. 2-25 Plot of R.I. Vs. Composition for System: X-H-100%Dmso-0%W at 40 °C	39
Fig.E. 2-26 Plot of R.I. Vs. Composition for System: X-H-90%Dmso-10%W at 40 °C	39
Fig.E. 2-27 Plot of R.I. Vs. Composition for System: X-H-80%Dmso-20%W at 40 °C	39
Fig.E. 2-28 Plot of R.I. Vs. Composition for System: B-Hep-Dmso at 20 °C	40
Fig.E. 2-29 Plot of R.I. Vs. Composition for System: B-Hep-90%Dmso-10%W at 20 °C	40
Fig.E. 2-30 Plot of R.I. Vs. Composition for System: B-Hep-80%Dmso-20%W at 20 °C	40
Fig.E. 2-31 Plot of R.I. Vs. Composition for System: B-Hep-Dmso at 30 °C	41
Fig.E. 2-32 Plot of R.I. Vs. Composition for System: B-Hep-90%Dmso-10%W at 30°C	41
Fig.E. 2-33 Plot of R.I. Vs. Composition for System: B-Hep-80%Dmso-20%Wat 30°C	41
Fig.E. 2-34 Plot of R.I. Vs. Composition for System: B-Hept-Dmso at 40 °C	42
Fig.E. 2-35 Plot of R.I. Vs. Composition for System: B-Hept-90%Dmso-10%Wat 40°C	42
Fig.E. 2-36 Plot of R.I. Vs. Composition for System: B-Hep-80%Dmso-20%W at 40 °C	42
Fig.E. 2-37 Plot of R.I. Vs. Composition for System: B-O-Dmso at 20 °C	43
Fig.E. 2-38 Plot of R.I. Vs. Composition for System: B-O-90%Dmso-10%W at 20 °C	43
Fig.E. 2-39 Plot of R.I. Vs. Composition for System: B-O-80%Dmso-20%W at 20 °C	43
Fig.E. 2-40 Plot of R.I. Vs. Composition for System: B-O-Dmso at 30 °C	44
Fig.E. 2-41 Plot of R.I. Vs. Composition for System: B-O-90%Dmso-10%W at 30 °C	44

Fig.E. 2-42 Plot of R.I. Vs. Composition for System: B-O-80%Dmso-20%W at 30 °C	44
Fig.E. 2-43 Plot of R.I. Vs. Composition for System: B-O-Dmso at 40 °C	45
Fig.E. 2-44 Plot of R.I. Vs. Composition for System: B-O-90%Dmso-10%W at 40 °C	45
Fig.E. 2-45 Plot of R.I. Vs. Composition for System: B-O-80%Dmso-20%W at 40 °C	45
Fig.R. 2-1 Plot of R.I. Vs. Composition for System: B-H-Dmso 20 °C	46
Fig.R. 2-2 Plot of R.I. Vs. Composition for System: B-H-90%Dmso+10 % 20 °C	46
Fig.R. 2-3 Plot of R.I. Vs. Composition for System: B-H-80%Dmso-20%W at 20 °C .	46
Fig.R. 2-4 Plot of R.I. Vs. Composition for System: B-H-Dmso 30 °C	47
Fig.R. 2-5 Plot of R.I. Vs. Composition for System: B-H-90%Dmso-10%W at 30 °C	47
Fig.R. 2-6 Plot of R.I. Vs. Composition for System: B-H-80%Dmso-20%W at 30 °C	47
Fig.R. 2-7 Plot of R.I. Vs. Composition for System: B-H-Dmso at 40 °C	48
Fig.R. 2-8 Plot of R.I. Vs. Composition for System: B-H-90%Dmso-10%W at 40 °C	48
Fig.R. 2-9 Plot of R.I. Vs. Composition for System: B-H-80%Dmso-20%W at 40 °C	48
Fig.R. 2-10 Plot of R.I. Vs. Composition for System: T-H-Dmso at 20 °C	49
Fig.R. 2-11 Plot of R.I. Vs. Composition for System: T-H-90%Dmso-10%W at 20 °C	49
Fig.R. 2-12 Plot of R.I. Vs. Composition for System: T-H-80%Dmso-20%W at 20 °C	49
Fig.R. 2-13 Plot of R.I. Vs. Composition for System: T-H-Dmso at 30 °C	50

Fig.R. 2-14 Plot of R.I. Vs. Composition for System: T-H-90% Dmso -10%W at 30 °C	50
Fig.R. 2-15 Plot of R.I. Vs. Composition for System: T-H-80%Dmso-20%W at 30 °C	50
Fig.R. 2-16 Plot of R.I. Vs. Composition for System: T-H-Dmso at 40 °C	51
Fig.R. 2-17 Plot of R.I. Vs. Composition for System: T-H-90% Dmso -10%W at 40 °C	51
Fig.R. 2-18 Plot of R.I. Vs. Composition for System: T-H-80%Dmso-20%W at 40 °C	51
Fig.R. 2-19 Plot of R.I. Vs. Composition for System: X-H-Dmso at 20 °C	52
Fig.R. 2-20 Plot of R.I. Vs. Composition for System: X-H-90%Dmso-10%W at 20 °C	52
Fig.R. 2-21 Plot of R.I. Vs. Composition for System: X-H-80%Dmso-20%W at 20 °C	52
Fig.R. 2-22 Plot of R.I. Vs. Composition for System: X-H-Dmso at 30 °C	53
Fig.R. 2-23 Plot of R.I. Vs. Composition for System: X-H-90%Dmso-10%W at 30 °C	53
Fig.R. 2-24 Plot of R.I. Vs. Composition for System: X-H-80%Dmso-20%W at 30°C	53
Fig.R. 2-25 Plot of R.I. Vs. Composition for System: X-H-100%Dmso-0%W at 40 °C	54
Fig.R. 2-26 Plot of R.I. Vs. Composition for System: X-H-90%Dmso-10%W at 40 °C	54
Fig.R. 2-27 Plot of R.I. Vs. Composition for System: X-H-80%Dmso-20%W at 40 °C	54
Fig.R. 2-28 Plot of R.I. Vs. Composition for System: B-Hep-Dmso at 20 °C	55
Fig.R. 2-29 Plot of R.I. Vs. Composition for System: B-Hep-90%Dmso-10%W at 20°C	55
Fig.R.2-30 Plot of R.I. Vs. Composition for System: B-Hep-80%Dmso-20%W at 20°C	55

Fig.R. 2-31 Plot of R.I. Vs. Composition for System: B-Hep-Dmso at 30 °C	56
Fig.R. 2-32 Plot of R.I. Vs. Composition for System: B-Hep-90%Dmso-10%W at 30°C	56
Fig.R. 2-33 Plot of R.I. Vs. Composition for System: B-Hep-80%Dmso-20%W at 30 °C	56
Fig.R. 2-34 Plot of R.I. Vs. Composition for System: B-Hept-Dmso at 40 °C	57
Fig.R. 2-35 Plot of R.I. Vs. Composition for System: B-Hept-90%Dmso-10%W at 40 °C	57
Fig.R. 2-36 Plot of R.I. Vs. Composition for System: B-Hep-80%Dmso-20%W at 40 °C	57
Fig.R. 2-37 Plot of R.I. Vs. Composition for System: B-O-Dmso at 20 °C	58
Fig.R. 2-38 Plot of R.I. Vs. Composition for System: B - O -90%Dmso-10%W at 20 °C	58
Fig.R. 2-39 Plot of R.I. Vs. Composition for System: B- O -80%Dmso-20%W at 20 °C	58
Fig.R. 2-40 Plot of R.I. Vs. Composition for System: B-O-Dmso at 30 °C	59
Fig.R. 2-41 Plot of R.I. Vs. Composition for System: B-O-90%Dmso-10%W at 30 °C	59
Fig.R. 2-42 Plot of R.I. Vs. Composition for System: B-O-80%Dmso-20%W at 30 °C	59
Fig.R. 2-43 Plot of R.I. Vs. Composition for System: B-O-Dmso at 40 °C	60
Fig.R. 2-44 Plot of R.I. Vs. Composition for System: B-O-90%Dmso-10%W at 40 °C	60
Fig.R. 2-45 Plot of R.I. Vs. Composition for System: B-O-80%Dmso-20%W at 40 °C	60

Figure index

Appendix: I(B) :Mutual solubility data figures for Quaternary Systems

Figure No	Contents	Page
Fig -1 Mutual solubility Data for the Quaternary System	Benzene (B)- Hexane (H)-Dmf(D) + Water(W) at 20°C	61
Fig. – 2 Mutual solubility Data for the Quaternary System	Benzene (B)- Hexane (H)-Dmf(D) + Water(w) at 30°C	62
Fig.. – 3 Mutual solubility Data for the Quaternary System	Benzene (B)- Hexane (H)-Dmf(D) + Water(w) at 40°C	63
Fig.. – 4 Mutual solubility Data for the Quaternary System	Toluene (T) Hexane (H)-Dmf(D) + Water(w) at 20°C	64
Fig.. – 5 Mutual solubility Data for the Quaternary System	Toluene (T) Hexane (H)-Dmf(D) + Water(w) at 30°C	65
Fig.. – 6 Mutual solubility Data for the Quaternary System	Toluene (T) Hexane (H)-Dmf(D) + Water(w) at 40°C	66
Fig.. – 7 Mutual solubility Data for the Quaternary System	Xylene(X)- Hexane (H)-Dmf(D) + Water(w) at 20°C	67
Fig.. – 8 Mutual solubility Data for the Quaternary System	Xylene(X)- Hexane (H)-Dmf(D) + Water(w):- at 30°C	68
Fig.. – 9 Mutual solubility Data for the Quaternary System	Xylene(X)- Hexane (H)-Dmf(D) + Water(w) at 40°C	69
Fig.. – 10 Mutual solubility Data for the Quaternary System	Benzene(B)-Hept (H')-Dmf(D) + Water(w) at 20°C	70
Fig.. – 11 Mutual solubility Data for the Quaternary System	Benzene(B)-Hept (H')-Dmf(D) + Water(w) at 30°C	71
Fig. – 12 Mutual solubility Data for the Quaternary System	Benzene(B)-Hept (H')-Dmf(D) + Water(w) at 40°C	72
Fig. – 13 Mutual solubility Data for the Quaternary System	Benzene(B)-Oct (O)-Dmf(D) + Water(w) at 20°C	73
Fig. – 14 Mutual solubility Data for the Quaternary System	Benzene(B)-Oct (O)-Dmf(D) + Water(w) at 30°C	74

Fig. – 15 Mutual solubility Data for the Quaternary System Benzene(B)-Oct (O)-Dmf(D) + Water(w) at 40°C	75
Fig. – 16 Mutual solubility Data for the Quaternary System Benzene (B)- Hexane (H)-Dmso(D) + Water(W) at 20°C	76
Fig. – 17 Mutual solubility Data for the Quaternary System Benzene (B)- Hexane (H)-Dmso(D) + Water(W) at 30°C	77
Fig. – 18 Mutual solubility Data for the Quaternary System Benzene (B)- Hexane (H)-Dmso(D) + Water(W) at 40°C	78
Fig. – 19 Mutual solubility Data for the Quaternary System Toluene (T) Hexane (H)-Dmso(D) + Water(w) at 20°C	79
Fig. – 20 Mutual solubility Data for the Quaternary System Toluene (T) Hexane (H)-Dmso(D) + Water(w) at 30°C	80
Fig. – 21 Mutual solubility Data for the Quaternary System Toluene (T) Hexane (H)-Dmso(D) + Water(w) at 40°C	81
Fig. – 22 Mutual solubility Data for the Quaternary System Xylene(X)- Hexane (H)-Dmso(D) + Water(W) at 20°C	82
Fig. – 23 Mutual solubility Data for the Quaternary System Xylene(X)- Hexane (H)-Dmso(D) + Water(W) at 30°C	83
Fig. – 24 Mutual solubility Data for the Quaternary System Xylene(X)- Hexane (H)-Dmso(D) + Water(W) at 40°C	84
Fig. – 25 Mutual solubility Data for the Quaternary System Benzene(B)-Hept(H')-Dmso(D') + Water(w) at 20°C	85
Fig. – 26 Mutual solubility Data for the Quaternary System Benzene(B)-Hept(H')-Dmso(D') + Water(w) at 30°C	86
Fig. – 27 Mutual solubility Data for the Quaternary System Benzene(B)-Hept(H')-Dmso(D') + Water(w) at 40°C	87
Fig. – 28 Mutual solubility Data for the Quaternary System Benzene(B)-Oct(O)-Dmso(D') + Water(w) at 20°C	88
Fig. – 29 Mutual solubility Data for the Quaternary System Benzene(B)-Oct(O)-Dmso(D') + Water(w) at 30°C	89
Fig. – 30 Mutual solubility Data for the Quaternary System Benzene(B)-Oct(O)-Dmso(D') + Water(W) at 40°C	90