

TABLE 1. List of all liquids studied providing relevant references and information such as glass transition temperature,  $T_g$ , and intervals for quantities characterizing the data: the activation energy temperature index,  $I_{\Delta E} \equiv |d \ln(\Delta E)/d \ln(T)|$ ; temperature  $T$ ; maximum dielectric loss  $\log(\epsilon''_{max})$ ; and minimum slopes of the log-log plot of the loss  $|\alpha_{min}|$ . The data listed below can be obtained from the “Glass and Time: Data repository”, found online at <http://glass.ruc.dk/data>.

Liquid	Abbreviation	$T_g$ (K)	Intervals				Symbol and ref.
			$I_{\Delta E}$	$T$ (K)	$\log \epsilon''_{max}$	$ \alpha_{min} $	
1,1'-bis(methoxyphenyl)-cyclohexane	BPC	212	3.67; 3.67	338; 362	0.258; 0.321	0.41; 0.5	◇ [6]
1,2-propanediol	PG	168 [1]	1.16; 1.56]	180; 205	1.3; 1.375	0.66; 0.69	◁ this work
1,3-propane diol	13PD	167 [2]	0.73; 1.13	165; 189	1.419; 1.477	0.73; 0.75	● this work
2,3-dimethyl-pentane	2,3-DMP	87.5	1.78; 1.78	98; 99	-1.971; -1.967	0.43; 0.44	▽ [3]
2,3-epoxy-propyl-phenylether	23EPPPE	193	3.74; 3.79	196; 200	0.483; 0.522	0.55; 0.55	▷ this work
2,4,6-trimethyl-heptane	246TMH	123	2.51; 2.51	134; 135	-2.025; -2.024	0.35; 0.36	◇ [3]
2-methyl-pentane-2,4-diol	2MP24D	187	3.2; 3.5	210; 232	-0.28; -0.202	0.39; 0.49	○ this work
2-methyl-tetrahydrofuran	MTHF	91	2.77; 3.66	91; 103	0.776; 0.815	0.5; 0.51	▽ this work
2-phenyl-5-acetomethyl-5-ethyl-1,3-dioxocyclohexane	APED	222 [4]	2.69; 3.23	220; 240	0.357; 0.397	0.46; 0.49	▽ this work
2-picoline	2pic	130	3.17; 3.26	135; 141	0.618; 0.658	0.52; 0.55	▷ [5]
3-fluoro-aniline	3FA	172 [14]	5.1; 5.1	235; 239	-0.135; -0.121	0.46; 0.48	□ [8]
3-methyl-heptane	3MH	97	1.78; 1.78	109; 110	-2.477; -2.477	0.27; 0.27	● [3]
3-methyl-pentane	3MP	79	1.97; 1.97	88; 89	-2.283; -2.281	0.36; 0.38	* [3]
4-methyl-	4MH	99	1.63; 1.98	111; 114	-2.004; -1.995	0.48; 0.49	* [3]

TABLE I – continued from previous page

Liquid	Abbreviation	$T_g$ (K)	Intervals				Symbol and ref.
			$I_{\Delta E}$	$T$ (K)	$\log \varepsilon''_{max}$	$ \alpha_{min} $	
heptane							[3]
4-tertbutylpyridine	4TBP	166	2.32; 13.79	164; 177	0.566; 0.602	0.52; 0.54	$\triangle$ [9]
4,7,10-trioxatridecane-1,13-diamine	TOTDA	108	4.45; 4.45	177; 181	0.356; 0.401	0.33; 0.38	$\triangleleft$ this work
5-polyphenyl-ether	PPE	248	4.04; 4.24	252; 264	-0.258; -0.214	0.5; 0.51	* [10]
$\alpha$ -phenyl-o-cresol	PoC	219	4.01; 4.01	220; 228	0.011; 0.032	0.46; 0.47	* this work
benzophenone	BP	212	3.59; 3.66	215; 230	0.56; 0.647	0.55; 0.58	$\square$ [12]
biphenyl-2yl-isobutylate	BP2IB	210 [4]	1.86; 2.03	190; 200	1.232; 1.253	0.66; 0.68	* this work
butyronitrile	But	95	1.91; 1.91	98; 116	1.061; 1.121	0.59; 0.67	+ [13]
decahydro-isoquinoline	DHIQ	180 [15]	7.13; 7.13	180; 185	-0.626; -0.599	0.1; 0.25	$\square$ [10, 15]
dibutyl-ammonium-formide	DBAF	153	1.14; 2.22	162; 185	1.127; 1.218	0.67; 0.69	$\triangleright$ [28]
dibutyl phthalate	DBP	177	2.6; 3.07	178; 192	0.301; 0.348	0.48; 0.51	* this work
di-iso-butyl phthalate	DisoBP	191 [14]	1.65; 2.94	201; 221	-0.06; -0.016	0.39; 0.5	+ this work
dicyclohexyl-methyl-2-methyl-succinate	DCMMS	220	2.8; 3.41	224; 240	0.381; 0.411	0.49; 0.5	$\nabla$ [16]
dicyclohexyl-2-methyl-succinate	DCHMS	222 [4]	2.11; 2.64	218; 230	-0.05; -0.041	0.37; 0.38	$\bullet$ this work
diethyl phthalate	DEP	187 [14]	2.93; 2.93	183; 192	0.375; 0.412	0.49; 0.5	$\circ$ this work
diglycidyl-ether of bisphenol A (epoxy-resin)	ER	259	3.67; 3.67	338; 362	0.258; 0.321	0.41; 0.5	$\diamond$ [17]
dioctyl phthalate	DOP	189 [18]	1.35; 2.21	190; 220	0.168; 0.205	0.5; 0.53	$\diamond$ this work
dipropylene-dimethyl-glycol-dimethylether	DPGDME	137 [19]	3.52; 3.52	139; 151	0.327; 0.373	0.45; 0.48	$\triangleright$ this work

TABLE I – continued from previous page

Liquid	Abbreviation	$T_g$ (K)	Intervals				Symbol and ref.
			$I_{\Delta E}$	$T$ (K)	$\log \varepsilon''_{max}$	$ \alpha_{min} $	
ethylene glycol glycol	EG	152	2.64; 2.64	158; 165	1.354; 1.364	0.63; 0.67	+ [27]
glycerol	Gly	193 [2]	1.29; 1.77	192; 236	1.317; 1.401	0.57; 0.62	* [20]
isoeugenol		220	2.85; 2.99	225; 248	0.085; 0.104	0.46; 0.49	× this work
isopropylbenzene (cumene)	Cumene	126	3.01; 3.05	135; 139	-0.951; -0.948	0.49; 0.51	△ this work
methyl-m-toluate	MMT	165	2.42; 2.6	173; 189	0.371; 0.397	0.49; 0.55	◇ this work
n-ε-methylcaprolactam	nMC	172 [32]	1.45; 1.45	186; 196	0.778; 0.816	0.59; 0.62	△ this work
n-propylbenzene	nPB	122 [14]	2.05; 2.7	127; 137	-0.902; -0.878	0.54; 0.63	* this work
phenolphthalein-dimethylether	PDE	295 [7]	3.61; 4.04	301; 325	0.808; 0.833	0.6; 0.68	◁ [22]
phenylsalicate (salol)	Salol	215 [23]	3.2; 4.53	177; 187	0.793; 0.834	0.46; 0.48	× [5]
polypropylene-glycol 400	PPG	73	1.9; 3.19	200; 226	0.436; 0.556	0.4; 0.48	+ [20]
propylene carbonate	PC	160	3.4; 4.22	162; 170	1.699; 1.703	0.63; 0.65	× [24]
salicylsalicylic acid	SSA	279 [25]	3.1; 3.1	305; 308	-0.243; -0.238	0.23; 0.23	× this work
sorbitol	Sor	268 [14]	6.12; 6.12	268; 273	0.895; 0.959	0.26; 0.3	□ this work
sucrosebenzoate	SB	337	2.47; 3.96	343; 373	-0.461; -0.373	0.35; 0.41	○ [26]
tetraphenyltetramethyltrisiloxane	DC704	211	3.93; 3.93	211; 219	-1.148; -1.109	0.48; 0.48	◁ [10]
tricresylphosphate	TCP	211	2.5; 3.29	214; 236	0.33; 0.356	0.56; 0.58	□ [11]
trimethylpentaphenyltrisiloxane	DC705	230	3.81; 3.81	233; 235	-1.203; -1.191	0.49; 0.5	○ this work
trimethyl phosphate	3MPh	136	2.7; 3.51	141; 150	1.104; 1.214	0.55; 0.56	◁ [9]
triphenyl phosphite	TPP	204	5.08; 5.08	204; 208	-0.493; -0.479	0.48; 0.49	× [20]

TABLE I – continued from previous page

Liquid	Abbreviation	$T_g$ (K)	Intervals				Symbol and ref.
			$I_{\Delta E}$	$T$ (K)	$\log \varepsilon''_{max}$	$ \alpha_{min} $	
triphenyl-ethylene	TPE	249 [29]	3.72; 3.72	256; 258	-1.866; -1.856	0.46; 0.49	○ [10]
toluene-pyridine mixture	TolPyr	123 [30]	5.16; 6.1	126; 131	0.597; 0.698	0.28; 0.44	△ [31]
xylitol	Xylitol	248 [14]	3.29; 3.98	254; 266	1.019; 1.065	0.28; 0.34	● this work

- 
- [1] C. Leon, K. L. Ngai, and M. Roland, J. Chem. Phys. **110**, 11585 (1999).
- [2] R. Richert and C. A. Angell, J. Chem. Phys. **108**, 9016 (1998).
- [3] S. Shahriari, A. Mandanici, L.-M. Wang, and R. Richert, J. Chem. Phys. **121**, 8960 (2004).
- [4] A. Garcia-Bernabé, private communication.
- [5] C. Gainaru, A. Rivera, S. Putselyk, G. Eska, and E. A. Rössler, Phys. Rev. B **72**, 174203 (2005).
- [6] K. L. Ngai, and M. Paluch, J. Chem. Phys. **120**, 857 (2004)
- [7] S. Sharifi, D. Prevosto, S. Capaccioli, M. Lucchesi, and M. Paluch, J. of Non-Crys. Sol. **353** 4313 (2007)
- [8] J. Wiedersich, T. Blochowicz, S. Benkhof, A. Kudlik, N. V. Surovtsev, C. Tschirwitz, V. N. Novikov, and E. A. Rössler, J. Phys.: Condens. Matter **11**, A147 (1999).
- [9] T. Blochowicz, C. Gainaru, P. Medick, C. Tschirwitz, and E. A. Rössler, J. Chem. Phys. **124**, 134503 (2006).
- [10] B. Jakobsen, K. Niss and N. B. Olsen, J. of Chem. Phys. **123**, 234511 (2005).
- [11] T. Hecksher, A. I. Nielsen, N. B. Olsen, and J. C. Dyre,
- [12] P. Lunkenheimer, L. C. Pardo, M. Koehler, and A. Loidl,
- [13] N. Ito, K. Duvvuri, D. V. Matyushov, and R. Richert, J. Chem. Phys. **125**, 024504 (2006).
- [14] L.-M. Wang and R. Richert,
- [15] R. Richert, K. Duvvuri, and L.-T. Duong, J. Chem. Phys. **118**, 1828 (2003).
- [16] R. Diaz-Calleja, A. Garcia-Bernabe, M. J. Sanchis, and L. F. del Castillo, Phys. Rev. E **72**, 051505 (2005).
- [17] M. Mierzwa, S. Pawlus, M. Paluch, E. Kaminska, and K. L. Ngai, J. Chem. Phys. **128**, 044512

- (2008).
- [18] E. Kaminska, K. Kaminski, M. Paluch, J. Ziolo, and K. L. Ngai, J. Chem. Phys. **126**, 174501 (2007).
- [19] K. Grzybowska, S. Pawlus, M. Mierzwa, M. Paluch, and K. L. Ngai, J. Chem. Phys. **125**, 144507 (2006).
- [20] N. B. Olsen, T. Christensen, and J. C. Dyre, Phys. Rev. Lett. **86** 1271 (2001).
- [21] L.-M. Wang and R. Richert,
- [22] S. Hensel-Bielowka and M. Paluch, Phys. Rev. Lett. **89**, 025704 (2002).
- [23] M. Hatase, M. Hanaya, and M. Oguni, J. Non-Cryst. Solids **333**, 129 (2004).
- [24] L.-M. Wang, V. Velikov, and C. A. Angell, J. Chem. Phys. **117**, 10184 (2002).
- [25] H.P. Diogo, S.S. Pinto and J.J. Moura Ramos, J. Therm. Anal. Cal. **77**, 893 (2004).
- [26] J. R. Rajesh, W. Huang, R. Richert, E. L. Quitevisa, J. Chem. Phys. **124**, 014510 (2006).
- [27] T. Blochowicz, C. Tschirwitz, S. Benkhof, and E. A. Rössler, J. Chem. Phys. **118**, 7544 (2003).
- [28] N. Ito, W. Huang, and R. Richert, J. Phys. Chem. B **110**, 4371 (2006).
- [29] K. Niss and B. Jakobsen, *Dielectric and Shear Mechanical Relaxation in Glass Forming Liquids – A thorough analysis and experimental test of the DiMarzio-Bishop model*, Master's thesis in physics (IMFUFA Tekst 424, Roskilde University) (2003), [<http://milne.ruc.dk/imfufatekster/>].
- [30] N. B. Olsen, T. Christensen, and J. C. Dyre, Phys. Rev. E **62**, 4435 (2000).
- [31] N. B. Olsen, J. Non-Cryst. Solids **235**, 399 (1998).
- [32] C. Hansen and R. Richert, J. Phys.: Condens. Mat. **9**, 9661 (1997).