

Electronic Supplementary Information for:

Solubility of metal-boron-hydrogen compounds

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Borohydride compounds

Solvent	Compound																					
	LiBH ₄	NaBH ₄	KBH ₄	CsBH ₄	RbBH ₄	Mg(BH ₄) ₂	Ca(BH ₄) ₂	Sr(BH ₄) ₂	Ba(BH ₄) ₂	TMABH ₄	TBABH ₄	TEABH ₄	Y(BH ₄) ₃	Nd(BH ₄) ₃	Sm(BH ₄) ₂	Sm(BH ₄) ₃	Gd(BH ₄) ₃	Yb(BH ₄) ₂	Yb(BH ₄) ₃	Eu(BH ₄) ₂	U(BH ₄) ₄	
Water	sol. ^{a 1} reac.*	55 wt.% ^{b 4}	19 wt.% ^{b 4} reac.*	vs. ^{b 8}	vs. ^{b 8}	reac.	sol. ^{b 8}	sol. ^{b 8}		48 wt.% ¹³	sol. ⁵	reac. ^{13,14}										
Methanol	reac.	reac. (16.4 wt.%) ⁴	0.7 wt.% (20°C) ⁴ 0.56 wt.% ^{b 8}	14.2 wt.% ^{b 8}	6.1 wt.% ^{b 8}	reac.				reac. ¹³		reac. ^{13,14}										
Ethanol	sol. ¹	reac. (4.0 wt.%) ⁴	0.25 wt.% ^{b 8}			reac.				0.5 wt.% ^{b 13}	sol. ¹⁴	reac. ¹³										
THF	11.43 M ^{b 2} 21 - 28 wt.% ³ 15.5 g/100 g (-23°C) ⁴ 24.3 g/100 g (35°C) ⁴	0.1 wt.% ⁴	insol. ^{b 8}			sol. ⁶	1690 mmol/L ⁶	40 mmol/L ⁶	insol. ⁶	insol. ^{4,13}	sol. ⁵	insol. ¹⁴	40 mmol/L ⁶	35 mmol/L ⁶	40 mmol/L ⁶	< 25 mmol/L ⁶	40 mmol/L ⁶	25 mmol/L ⁶	60 mmol/L ⁶			
Ammonia	48 wt.% (RT) ⁴	104 wt.% ^{b 4}	20 wt.% ^{b 4}									sol. ¹⁴										
Methylamine		27.6 wt.% (-22°C) ⁹																				
Ethylamine		20.9 wt.% (17°C) ⁹																				
Diethylamine		< 1 wt.% ¹⁰																				
Triethylamine	sol. ⁵	< 1 wt.% ¹⁰				insol. ¹¹																
Trimethylamine						insol. ¹¹																
TMEDA						sol. ¹¹																
Ethylenediamine		22 wt.% (75°C) ⁴	3.9 wt.% (75°C) ⁴							insol. ⁴												
n-Propyl amine		9.7 wt.% ⁴																				
Isopropyl amine	1270 mmol/L ⁶ 3 - 4 g/L ^{b 4}	6.0 wt.% ⁴ 1100 mmol/L	insol. ^{b 8}			sol. ¹²				insol. ^{4,13}	sol. ¹⁴	sol. ¹⁴										
t-Butyl amine						sol. ¹²																
n-Butyl amine		4.9 wt.% ⁴																				
Cyclohexylamine		1.8 wt.%																				
Morpholine		1.4 wt.% ^{b 4}																				
Aniline		0.6 wt.%																				
Pyridine		3.1 wt.% ^{b 4}				sol. ¹²				insol. ¹³												
Ethanolamine		7.7 wt.%																				
2-Propanol		0.25 wt.% ⁴ 0.37 wt.% ^{b 9}										sol. ¹⁴										
t-Butanol		0.11 wt.% ^{b 9}																				
2-Ethylhexanol		0.01 wt.% ^{b 9}																				
Tetrahydrofurfuryl alcohol		reac. (14.0 wt.%) ⁴																				
Monoglyme	4700 mmol/L ⁶	2.6 wt.% (0°C) ⁴ 0.8 wt.% (20°C) ⁹	insol. ⁴				0.13 wt.% ^{b 8}															
Diglyme	9.92 wt.% ⁷ 4250 mmol/L ⁶	5.5 wt.% ^{b 4}	insol. (0.013 wt%) ⁴								sol. ⁵											
Triglyme		8.7 wt.% ^{b 4}	0.1 wt.% (0°C) ⁴																			
Tetraglyme		9.1 wt.% ^{b 4}	insol. ⁴																			
DMF		18.0 wt.% ⁴	15.0 wt.% ⁴									sol. ¹⁴										
Dimethylacetamide		14.0 wt.% ⁹																				
DMSO		5.8 wt.% ^{b 9}								1.87 wt.% ¹³												
Acetonitrile	sol. ⁵	2.0 wt.% ⁹ < 1 wt.% ¹⁰	insol. ¹							0.4 wt.% ^{b 13}	sol. ¹⁴	sol. ¹⁴										
1,4-Dioxane	0.3 wt.% ⁸	insol. ¹⁰	insol. ⁶				0.1 wt.% ^{b 8}			insol. ¹³												
2-Ethoxyethanol		< 1 wt.% ¹⁰								insol. ¹³												
1,2-Diethoxyethane		< 1 wt.% ¹⁰																				
Ethyl acetate		< 1 wt.% ¹⁰								insol. ⁴												
Diethyl ether	1.4 M ² 4.5 wt.% ⁸ 3 g/100 g (20°C) ⁴ 28 g/100 g (39°C) ⁴	insol. ⁸	insol. ¹	insol. ^{b 8}	insol. ^{b 8}	sol. (20.8 wt.%) ^{b 5,6,8}	insol. (0.045M) ^{b 8}	insol. ^{6,8}		insol. ¹³	insol. ¹⁴	insol. ¹⁴										sol. ¹⁷
Dimethyl ether																						sol. ¹⁷
Trimethyl borate		< 1 wt.% ¹⁰																				
Chloroform										insol. ¹³	sol. ¹⁴	reac. ¹⁴										
Carbon disulfide																						
o-Bismethoxybenzene	sol. ⁵																					
Benzene										insol. ⁴	sol. ^{5,14}	insol. ¹⁴										
Dimethylsulfide						60 mmol/L ⁶							50 mmol/L ⁶	60 mmol/L ⁶			< 20 mmol/L ⁶		sol. ⁶	sol. ¹⁶		
Dichloromethane											0.31 g/ml ^{b 15} 1.2 M ^{b 15}	sol. (or 0.9 M) ^{b 15} 0.13 g/ml ^{b 15}										
Dichloroethane																						
Hydrazine	15.6 wt.%(RT) ⁴																					
Hexane																						
Acetone						reac.				insol. ⁴												
Cyclohexane																						
RNH ₂		sol. ⁶																				
Carbon tetrachloride																						
Piperidine						sol. ¹²				insol. ¹³												
Benzylamine						sol. ¹²																

Notes: ^a alkaline, * the stability of BH₄⁻ in water is enhanced in alkaline solutions (addition of acetic acid leads to strong reaction), ^b 25°C

closo-B10H10(2-) compounds

Solvent	Compound																				
	Li ₂ B ₁₀ H ₁₀ ·2.6H ₂ O	Na ₂ B ₁₀ H ₁₀ ·0.7H ₂ O	K ₂ B ₁₀ H ₁₀ ·0.6H ₂ O	Ag ₂ B ₁₀ H ₁₀	Cs ₂ B ₁₀ H ₁₀	Tl ₂ B ₁₀ H ₁₀	HgB ₁₀ H ₁₀	(R ₄ N) ₂ B ₁₀ H ₁₀	(R ₃ NH) ₂ B ₁₀ H ₁₀	R(R ₄ P) ₂ B ₁₀ H ₁₀	(R ₃ S) ₂ B ₁₀ H ₁₀	Ni(NH ₃) ₆ B ₁₀ H ₁₀	[NH(ET) ₃] ₂ B ₁₀ H ₁₀	CaB ₁₀ H ₁₀	BaB ₁₀ H ₁₀	Li ₂ B ₁₀ H ₁₀	[Ni(DMF) ₆][B ₁₀ H ₁₀]	[Ni(DMSO) ₆][B ₁₀ H ₁₀]	Na ₂ B ₁₀ H ₁₀	K ₂ B ₁₀ H ₁₀	(TEA) ₂ B ₁₀ H ₁₀
Water	18.8 g B/100 ml (4°C) ¹⁸ 32.3 g B/100 ml (22°C) ¹⁸ 54.3 g B/100 ml (40°C) ¹⁸ 87.1 g B/100 ml (60°C) ¹⁸	13.9 g B/100 ml (4°C) ¹⁸ 21.1 g B/100 ml (22°C) ¹⁸ 37.2 g B/100 ml (40°C) ¹⁸ 58.5 g B/100 ml (60°C) ¹⁸	6.4 g B/100 ml (4°C) ¹⁸ 8.4 g B/100 ml (22°C) ¹⁸ 16.5 g B/100 ml (40°C) ¹⁸ 26.1 g B/100 ml (60°C) ¹⁸	insol. ^{19,20}	insol. ¹⁹	insol. ¹⁹	insol. ¹⁹	insol. ¹⁹	insol. ¹⁹	insol. ¹⁹	insol. ¹⁹	insol. ¹⁹	vs. ¹⁹	sol. ¹⁹	sol. ¹⁹	sol. ²¹	reac. ²²	reac. ²²	sol. ¹⁸		
Methanol																sol. ²¹					
Ethanol																sol. ²¹			sol. ²³		
THF																insol. ²¹					
2-propanol																sol. ²¹			sol. ²⁴		
DMF																sol. ²¹					
DMSO																sol. ²¹					
Acetonitrile																sol. ²¹	reac. ²²	reac. ²²		sol. ²⁶	sol. ¹⁴
Diethyl ether																			sol. ²⁵		
Dichloromethane																insol. ²¹					
Acetone																sol. ²¹					
2-Butanol																sol. ²¹					
2-Butanone																reac. ²¹					
Toluene																insol. ²¹					
Cyclohexane																insol. ²¹					

closo-B12H12(2-) compounds

Solvent	Compound																				
	Na ₂ B ₁₂ H ₁₂	Na ₂ B ₁₂ H ₁₂ ·1.5H ₂ O	Li ₂ B ₁₂ H ₁₂	Li ₂ B ₁₂ H ₁₂ ·3H ₂ O	K ₂ B ₁₂ H ₁₂	K ₂ B ₁₂ H ₁₂ ·1.3H ₂ O	[(CH ₃) ₃ NH] ₂ B ₁₂ H ₁₂	Ag ₂ B ₁₂ H ₁₂	Cs ₂ B ₁₂ H ₁₂	Tl ₂ B ₁₂ H ₁₂	HgB ₁₂ H ₁₂	(R ₄ N) ₂ B ₁₂ H ₁₂	(R ₃ NH) ₂ B ₁₂ H ₁₂	R(R ₄ P) ₂ B ₁₂ H ₁₂	(R ₃ S) ₂ B ₁₂ H ₁₂	Ni(NH ₃) ₆ B ₁₂ H ₁₂	[NH(Et) ₃] ₂ B ₁₂ H ₁₂	CaB ₁₂ H ₁₂	BaB ₁₂ H ₁₂	(Me ₄ N) ₂ B ₁₂ H ₁₂	
Water	sol. ^{18,24}	13.1 g B/100 ml (4°C) ¹⁸ 21.4 g B/100 ml (22°C) ¹⁸ 32.0 g B/100 ml (40°C) ¹⁸ 47.3 g B/100 ml (60°C) ¹⁸	sol. ^{18,21}	16.8 g B/100 ml (4°C) ¹⁸ 27.9 g B/100 ml (22°C) ¹⁸ 41.6 g B/100 ml (40°C) ¹⁸ 67.0 g B/100 ml (60°C) ¹⁸	sol. ¹⁸	6.6 g B/100 ml (4°C) ¹⁸ 9.2 g B/100 ml (22°C) ¹⁸ 20.0 g B/100 ml (40°C) ¹⁸ 32.2 g B/100 ml (60°C) ¹⁸	insol. ³¹	insol. ^{19,20}	insol. ¹⁹	insol. ¹⁹	insol. ¹⁹	insol. ¹⁹	insol. ¹⁹	insol. ¹⁹	insol. ¹⁹	insol. ¹⁹	insol. ¹⁹	sol. ¹⁹	sol. ¹⁹	sol. ^{b,33}	
Methanol			sol. ²¹																		
Ethanol	sol. ²⁷		sol. ²¹																		
THF	sol. ²⁸		insol. ²¹																		
2-Propanol	sol. ²⁴		sol. ²¹																		
Diglyme					sl. ³¹																
DMF			sol. ²¹																		
DMSO			sol. ²¹																		
Acetonitrile			sol. ²¹		sol. (0.035 M) ^{a,32}																
Dichloroethane			insol. ²¹																		
Acetone			sol. (0.15 M) ^{21,29}																		
Propylene carbonate			insol. ³⁰																		
EC-DMC			insol. ³⁰																		
BMIM-TFSI			insol. ³⁰																		
2-Butanol			sol. ²¹																		
2-Butanone			reac. ²¹																		
Toluene			insol. ²¹																		
Cyclohexane			insol. ²¹																		

Notes: ^a in 0.3% water containing acetonitrile, ^b boiling

nido-B11H14(-) compounds

Solvent	Compound													
	RbB ₁₁ H ₁₄	CsB ₁₁ H ₁₄	[(CH ₃) ₄ N]B ₁₁ H ₁₄	[(CH ₃) ₃ S]B ₁₁ H ₁₄	[(C ₂ H ₅) ₃ NH]B ₁₁ H ₁₄	[(CH ₃) ₃ NH]B ₁₁ H ₁₄	Ca(B ₁₁ H ₁₄) ₂ · 4Dg	Nd(B ₁₁ H ₁₄) ₃ · 4Dg	NaB ₁₁ H ₁₄	LiB ₁₁ H ₁₄	KB ₁₁ H ₁₄	TEAB ₁₁ H ₁₄	NaB ₁₁ H ₁₄ ·ndioxane	B ₁₁ H ₁₄ ⁻
Water	insol. ³⁴	insol. ³⁴	insol. ³⁴	insol. ³⁴	insol. ³⁴	insol. ³⁴	sol. ³⁸	sol. ³⁹						
THF						sol. ³⁵	sol. ³⁸	sol. ³⁹		sol. ³⁵				
2-Propanol								sl. ³⁹						
Diglyme							sol. ³⁸	sol. ³⁹	sol. ³⁶				insol. ²⁸	sol. ³¹
DMSO									sol. ^{b 36}	sol. ^{b 36}	sol. ^{b 36}			
Acetonitrile						sol. ^{a 36,37}								
Diethyl ether												insol. ⁴⁰		
Hexane							insol. ³⁸	insol. ³⁹						
Acetone												10 g/ 100 mL ⁴⁰		
Pentane							insol. ³⁸	insol. ³⁹						

Notes: ^a in deuterated acetonitrile (CD₃CN), ^b in DMSO-d₆

Other compounds

Solvent	$[(\text{hex})_2\text{N}]_2\text{B}_{12}\text{Cl}_{12}$	$\text{Na}_2\text{B}_{12}\text{H}_6\text{Br}_6$	$\text{Li}_2\text{B}_{12}(\text{OH})_{12}$ $3 \times 10^{-3} \text{ M}^{a,41}$	$\text{Na}_2\text{B}_{12}(\text{OH})_{12}$ $7.2 \times 10^{-3} \text{ M}^{a,41}$	$\text{K}_2\text{B}_{12}(\text{OH})_{12}$ $2.8 \times 10^{-3} \text{ M}^{a,41}$	$\text{Rb}_2\text{B}_{12}(\text{OH})_{12}$ $5.4 \times 10^{-3} \text{ M}^{a,41}$	$\text{Cs}_2\text{B}_{12}(\text{OH})_{12}$ $7.8 \times 10^{-3} \text{ M}^{a,41}$	$(\text{NH}_4)_2\text{B}_{12}(\text{OH})_{12}$ $8.4 \times 10^{-3} \text{ M}^{a,41}$	$(\text{H}_3\text{O})_2\text{B}_{12}(\text{OH})_{12}$ $1.9 \times 10^{-3} \text{ M}^{a,41}$	$\text{B}_9\text{H}_{14}^-$	$1,6\text{-}(\text{CH}_3)_2\text{SB}_{10}\text{H}_8\text{NH}_3$	$2,4\text{-B}_{10}\text{H}_8(\text{NH}_3)_2$	$\text{B}_{12}\text{H}_{10}[\text{N}(\text{CH}_3)_2]_2$	$1,1,2\text{-B}_{12}\text{H}_{10}(\text{NH}_3)_2$	$\text{Cu}_2(\text{CH}_3\text{CN})_4[\text{B}_{10}\text{H}_{10}]$	$\{(\text{p-Cymene})\text{Ru}[\text{S}_2\text{C}_2(\text{B}_{10}\text{H}_{10})]\text{-Mo}(\text{CO})_2((\text{CO})_2\text{Ru}[\text{S}_2\text{C}_2(\text{B}_{10}\text{H}_{10})])\}$	$(\text{COD})_2\text{Rh}_2[\text{I}_2\text{-S}_2\text{C}_2\text{B}_{10}\text{H}_{10}]$	$(\text{COD})_2\text{Rh}_2[\text{I}_2\text{-Se}_2\text{C}_2\text{B}_{10}\text{H}_{10}]$	$[\text{Ni}(\text{DMF})_4][\text{B}_{10}\text{H}_{10}]$	$[\text{Ni}(\text{DMSO})_4][\text{B}_{10}\text{H}_{10}]$	$[(\text{CH}_3)_4\text{N}]_2\text{B}_{10}\text{H}_{18}$	
Water	insol. ²⁰																			reac. ²²	reac. ²²	
Methanol	sol. ²⁰																					
Ethanol																						
THF		sol. ²⁰																sol. ⁴⁵	sol. ⁴⁵			
Ammonia																						
2-Propanol																						
t-Butanol																						
2-Ethylhexanol																						
Tetrahydrofurfuryl alcohol																						
Diglyme										sol. ³¹												
DMSO																						
Acetonitrile														sl. ⁴³						reac. ²²	reac. ²²	sol. ⁴⁶
1,4-Dioxane	sl. ²⁰																					
Ethyl acetate																						
Diethyl ether																						
Chloroform																						
Carbon disulfide	sl. ²⁰																					
o-Bismethoxybenzene																						
Benzene	insol. ²⁰																					
Dichloromethane																	sol. ⁴⁴					
Hexane	insol. ²⁰																sl. ⁴⁴	sl. ⁴⁵	sl. ⁴⁵			
Acetone	sol. ²⁰																					
Propylene carbonate																						
Methylene chloride	sol. ²⁰																					
2-Butanol																						
Toluene																						
Cyclohexane																						
Pentane																						
DME/1,3-dioxolane mixture																						
DME																						
1,3- dioxolane																						
Carbon tetrachloride																						
Alcohols																						
Paraffinic hydrocarbons																						
Concentrated phosphoric acid																						
Methyl iodide																						
1-Butanol																						
n-Propyl bromide																						
Ethyl silicate																						
Butyraldehyde																						
Acetic anhydride																						
Acetic acid																						
Triethyl borate																						
Caprylic acid																						

Notes: ^a 25°C, ^b in DMSO-d6, ^c acidic, ^d hot, ^e shock sensitive, ^f warm

NaB ₁₀ H ₁₃ CN·(CH ₃) ₂ S	B ₁₂ H ₁₀ (O ₂ SC ₄ H ₈) ₂	[(CH ₃) ₄ N] ₂ B ₃ Cl ₆ H	[(C ₂ H ₅) ₄ N] ₂ B ₃ Cl ₆ H	1.10-B ₁₀ H ₈ (N ₂) ₂	(C ₆ H ₁₁) ₂ B ₁₀ H ₄ (CO) ₂ (biscyclohexylated salt)	BaB ₁₂ H ₁₁ ·COOH·H ₂ O	(C ₂ H ₅ Hg) ₂ -1,10-B ₁₀ Cl ₆ (COC ₂ H ₅) ₂	TBAB ₃ H ₈	LiB ₃ H ₈	KB ₃ H ₈	TBAB ₃ H ₉	KB ₃ H ₉	B ₁₀ H ₁₄	Na ₂ B ₃ H ₆	B ₃ H ₈	KB ₃ H ₈	CsB ₃ H ₈	TMAB ₃ H ₈	TEAB ₃ H ₈	Ag ₂ B ₁₀ Cl ₁₀
	insol. ⁷⁰			insol. ⁷¹	insol. ⁷²	vs. ⁷²	insol. ⁷²										sol. ⁷⁵		sol. ⁷⁵	vs. ²⁰
	insol. ⁷⁰																	sol. ⁷⁵	sol. ⁷⁵	vs. ²⁰
	insol. ⁷⁰																			vs. ²⁰
		insol. ⁶⁰						sol. ⁷³		sol. ⁷³	sol. ⁷⁴	sol. ⁷⁴								vs. ²⁰
																				vs. ²⁰
	insol. ⁷⁰																			vs. ²⁰
	insol. ⁷⁰																			vs. ²⁰
	insol. ⁷⁰																			vs. ²⁰
	insol. ⁷⁰																			vs. ²⁰
															insol. ³³	sol. ³¹				
		sol. ⁶⁰	vs. ⁶⁰																sol. ⁷⁵	
		insol. ⁶⁰																	insol. ⁷⁶	
																				vs. ²⁰
													50 wt.% ⁴							
									sol. ⁵⁸											
		insol. ⁶⁰	insol. ⁶⁰					sol. ⁷³		insol. ⁷³	sol. ⁷⁴	insol. ⁷⁴								
																				20 wt.% ⁴
insol. ⁶⁹				sol. ⁷¹																20 wt.% ⁴
		insol. ⁶⁰	insol. ⁶⁰					sol. ⁷³		insol. ⁷³	sol. ⁷⁴	insol. ⁷⁴								
	insol. ⁷⁰																			
																				4 - 5 wt.% ⁴
								sol. ⁷³		sol. ⁷⁴	sol. ⁷⁴	sol. ⁷⁴								
																				10 wt.% ⁴
insol. ⁷⁰		sol. ⁶⁰																		
		insol. ⁶⁰																		
		insol. ⁶⁰																		
																				20 wt.% ⁴
																				20 wt.% ⁴
																				20 wt.% ⁴
																				20 wt.% ⁴
																				10 - 20 wt.% ⁴
																				10 wt.% ⁴
																				2 - 10 wt.% ⁴
																				2 wt.% ⁴

Dielectric constants of solvents

Solvents	Dielectric constants
Water	78.5
Methanol	32.6
Ethanol	24.6
THF	7.5
Ammonia	16.6
Methylamine	16.7
Ethylamine	8.7
Diethylamine	3.7
Triethylamine	2.4
Trimethylamine	2.9
TMEDA	2
Ethylenediamine	16.1
n-Propyl amine	5.1
Isopropyl amine	5.6
t-Butyl amine	4.3
n-Butyl amine	4.7
Cyclohexylamine	4.7
Morpholine	7.3
Aniline	7.1
Pyridine	12.3
Ethanolamine	31.9
2-Propanol	19.9
t-Butanol	12.5
2-Ethylhexanol	7.7
Tetrahydrofurfuryl alcohol	2.1
Monoglyme	7.3
Diglyme	7.2
Triglyme	7.5
Tetraglyme	12
DMF	38.2
Dimethylacetamide	37.8
DMSO	47
Acetonitrile	36.6
1,4-Dioxane	2.2
2-Ethoxyethanol	29.6
1,2-Diethoxyethane	3.9
Ethyl acetate	6
Diethyl ether	4.3
Dimethyl ether	5
Trimethyl borate	2.3
Chloroform	4.8
Carbon disulfide	2.6
o-Bismethoxybenzene	4.3
Benzene	2.3
Dimethylsulfide	6.3
Dichloromethane	9.1
Dichloroethane	10.4
Hydrazine	51.7

Hexane	1.9
Acetone	21
Glycerol	46.5
Propylene carbonate	64.4
EC-DMC	31.4
BMIM-TFSI	14
Methylene chloride	8.9
2-Butanol	17.3
2-Butanone	18.6
Toluene	2.4
Cyclohexane	2
Pentane	1.8
Thionyl chloride	9.3
DME/1,3-dioxolane mixture	7.3
DME	7.2
1,3- dioxolane	19
RNH ₂	
Carbon tetrachloride	2.2
Alcohols	
Paraffinic hydrocarbons	
Concentrated phosphoric acid	
Methyl iodide	7.1
Common organic solvents	
Anisole	4.3
1-Butanol	17.8
n-Propyl bromide	7.2
Ethyl silicate	2.5
Butyraldehyde	13.4
Acetic anhydride	22
Acetic acid	6.2
Triethyl borate	2.2
Caprylic acid	2.5
n-Heptane	1.9
Piperidine	5.9
Benzylamine	4.6

Abbreviations

Abbrivation	Meaning
sol.	soluble
insol.	insoluble
vs.	very soluble
sl.	slightly soluble
reac.	reacts with
THF	tetrahydrofuran
TMEDA	tetramethylethylenediamine
DMF	dimethylformamide
DMSO	dimethyl sulfoxide
EC-DMC	ethylene carbonate : dimethyl carbonate (1 : 1 vol.%)
BMIM-TFSI	1-butyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide
DME	1,2-dimethoxyethane
TEA	tetraethylamine
TBA	tetrabutylamine
TMA	tetramethylamine
COD	cycloocta-1,5-diene (C ₈ H ₁₂)
9-BBN	9-bora[3.3.1]bicyclononane (BC ₈ H ₁₄)
hex	hexane

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