

Supporting Information

On the Cost of Academic Methodologies

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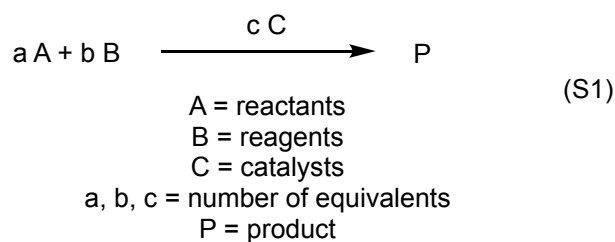
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Definitions & Formulas:

NOT INCLUDED in the calculations:

- cost of standard reagents (Et_3N , $i\text{-Pr}_2\text{NEt}$, NaOH , KOH , HCl , AcOH , etc.) and solvents. In general, chemicals costing less than 5 \$/mol are not considered because the overall contribution to CAM is negligible.
- costs of isolation and purification of the product.
- material hazards and associated additional shipping costs.
- reaction times, activation and heating methods, etc.
- reaction scale. Although scalability of the chemical methodologies is of the utmost importance for all practical considerations, this information may not be routinely provided in literature accounts.



$$\text{CAM} = \frac{\Sigma (bB + cC) (\$/\text{mol})}{1 \text{ or yield}} \quad (\text{S2})$$

$$\text{CAM}^* = \frac{\Sigma (aA + bB + cC) (\$/\text{mol})}{\text{yield}} \quad (\text{S3})$$

$$\text{AMW} = \Sigma (bB + cC) (\text{g}/\text{mol}) \quad (\text{S4})$$

$$\text{AMW}^* = \Sigma (aA + bB + cC) (\text{g}/\text{mol}) \quad (\text{S5})$$

We note that these calculations are very easy to accomplish. Whereas Table S6 certainly may be used to calculate CAM and AMW, the information could be gathered via vendors' websites within minutes.

Note about stereoselective methodologies (ee's and de's):

The issue of accounting for *ee* (or *de*) of the product in CAM calculations depends on the specific approaches (if any) that would be used to increase the *ee* % after the reaction. In a number of cases, the differences might not be sufficiently large, and thus could be ignored. In general, any *ee* values above 95 % could be treated as equal.

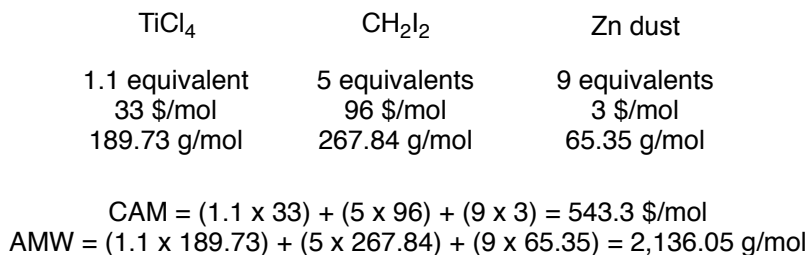
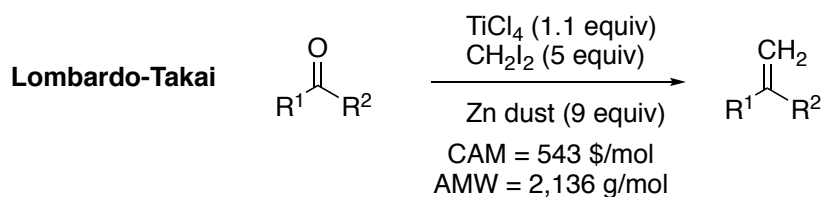
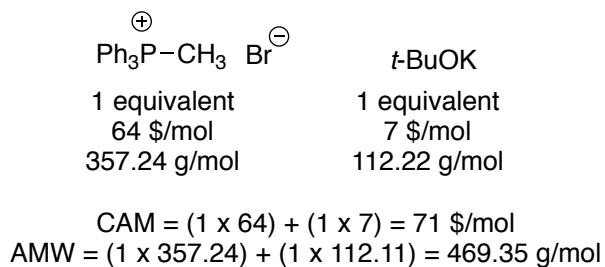
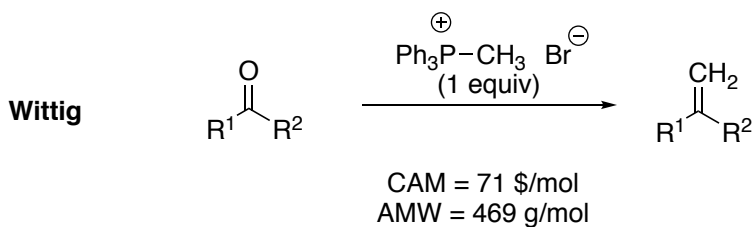
In cases where significantly different *ee*-values are obtained, the cost associated with approaches/reagents/methods to increase *ee*-values should be considered.

For example:

- a) it is known that simple crystallization might increase *ee* (for a review, see: Y. Wang and A. M. Chen, *Org. Process Res. Dev.*, 2008, **12**, 282–290); and in this instance the cost of solvent can be disregarded, and hence contribution of the recrystallization step(s) to overall CAM would be zero. As an example, see Scheme 7 in the manuscript.
- b) if resolving agents are used during the recrystallization step(s) (for some reviews, see: R. Siedlecka, *Tetrahedron*, 2013, **69**, 6331–6363; and E. Vedejs and M. Jure, *Angew. Chem. Int. Ed.*, 2005, **44**, 3974–4001), the costs of those agents should be included in CAM calculations, and the overall yield should be considered for CAM.
- c) if chromatographic techniques are used to get to a particular *ee*, specifics must be indicated and it would be up to the researcher to decide on which route to take (i.e., to decide how the cost of reagents, catalysts could be related to the cost of purification); the cost of chromatographic purification is outside of the scope of this review.

A detailed calculation of CAM for Scheme 1 is shown in Scheme S1 for two different olefinations as functional-group interconversion.

Since the exact structure of the starting material and product are unspecified, CAM is used (Equation S2 above).



Scheme S1. Detailed calculations for the comparison of two olefination methods

Table S1. 2009 Periodic Table – The Cost of Transition Metal Chlorides

Sc 14,285	Ti 13	V 520	Cr 120	Mn 8	Fe 2	Co 95	Ni 48	Cu 8	Zn 18
Y 510	Zr 60	Nb 110	Mo 141	Tc	Ru 2,765	Rh 42,360	Pd 4,910	Ag 285	Cd 110
La 520- 13,490	Hf 350	Ta 860	W 465	Re 35,185	Os 29,540	Ir 16,005	Pt 21,150	Au 21,720	Hg

Cheap < \$ 100	Moderately Cheap \$ 100-300	Expensive \$ 300-1,000	Very Expensive \$ 1,000-10,000	Extremely Expensive > \$ 10,000
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[a] This table was compiled in 2009 using G prices for the most available chloride (ECl_n). The number below the element's symbol indicates the cost (in US dollar) per mole of ECl_n in its most available oxidation state.

Table S2. 2018 Periodic Table – The Cost of Transition Metal Chlorides

Sc 19,970	Ti 33	V 245	Cr 130	Mn 3	Fe 1	Co 71	Ni 70	Cu 5	Zn 5
Y 705	Zr 86	Nb 210	Mo 375	Tc	Ru 4,480	Rh 39,300	Pd 4,470	Ag 250	Cd 105
La 700- 17,000	Hf 595	Ta 1,025	W 610	Re 33,590	Os 19,070	Ir 19,590	Pt 13,780	Au 26,810	Hg 65

Very Inexpensive < \$100	Inexpensive \$100-300	Expensive \$300-1,000	Very Expensive \$1,000-10,000	Extremely Expensive > \$10,000
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[a] This table was compiled using the least expensive major US supplier of each chloride (ECl_n). The number below the element's symbol indicates the cost (in US dollar) per mole of ECl_n in its most available oxidation state. See Supporting Information for details.

The differences between Tables S1 and S2:

In 2018, VCl_3 is 245 \$/mol (dark green), but was yellow in 2009

In 2018, MoCl_5 is 375 \$/mol (yellow), but was dark green in 2009

In 2018, TaCl_5 is 1,025 \$/mol (orange), but was yellow in 2009

Table S4. Molar Cost of Common Phosphorus Compounds in 2009, 2012, and 2018

Compound	2018 cost (\$/mol) ^[a]	2012 cost (\$/mol) ^[b]	2009 cost (\$/mol) ^[c]
PCl ₃	17	13.4	10
PCl ₅	13	14.8	8
H ₃ PO ₃	5	5.5	-
H ₃ PO ₂	5	7.6	6
NaH ₂ PO ₂ •H ₂ O	7	7.6	8
NH ₄ H ₂ PO ₂	14	8.8	-
P(OMe) ₃	8	8.5	-
P(OEt) ₃	6	5	-
(MeO) ₂ P(O)H	8	10.6	-
(EtO) ₂ P(O)H	12	10.5	-

[a] This table was compiled from the least expensive major supplier for each compound. [b] Commercial prices from A, as of June 2012 using the most advantageous quantity. [c] Commercial prices from G, as of February 2009.

Table S5. Cost of Common Catalysts and Catalyst Precursors in 2009 and 2018

Compound	2018 cost (\$/mol) ^[a]	2018 cost (\$/mol) ^[b]	2009 cost (\$/mol) ^[c]
triphenylphosphine	9	28	24
tri- <i>t</i> -butylphosphine	5,500	5,503	5,827
dppe (diphos)	235	1183	972
dppp	404	2,145	1,914
dppf	438	2,850	7,983
xantphos	984	10,207	23,145
Pd(OAc) ₂	5,735	7,490	6,062
NiCl ₂ (PPh ₃) ₂	1,260	1,727	1,308
Rh ₂ (OAc) ₄	60,996	60,996	81,991
RhCl(PPh ₃) ₃	48,852	75,129	72,538
[IrCl(C ₈ H ₁₂) ₂]	62,872	62,872	49,438
MeAu(PPh ₃)	155,093	155,093	105,292
Grubbs 1 st generation	50,036	-	59,889
Grubbs 2 nd generation	139,231	-	190,382
RuHCl(CO)(PPh ₃) ₃	54,782	54,858	56,763

[a] This table was compiled from the least expensive major supplier for each compound as of August 2018. [b] Commercial prices from G, as of August 2018. [c] Commercial prices from G, as of October 2009.

Table S6. Prices (in US dollars) of common chemicals in 2018

compound	MW	supplier	purity %	quantity g	cost (for quantity)	cost \$/g	cost \$/mol
(-)-menthol	156.27	A	>99	25000	2253	0.09	14
(-)-menthol	156.27	B		1000	250	0.25	39
(-)-menthol	156.27	C		5000	450	0.09	14
(-)-menthol	156.27	D	99	1000	230	0.23	36
(-)-menthol	156.27	E		500	109	0.22	34
(-)-menthol	156.27	F	99.5	2500	423	0.17	26
(EtO) ₂ P(O)H	138.1	A	94	1072	96.5	0.09	12
(EtO) ₂ P(O)H	138.1	D	96	1000	192	0.19	27
(EtO) ₂ P(O)H	138.1	G	95	500	117	0.23	32
(EtO) ₂ P(O)H	138.1	H	99	1000	125	0.13	17
(iPrO) ₂ P(O)H	166.16	G	98	250	218	0.87	145
(iPrO) ₂ P(O)H	166.16	H	98	500	165	0.33	55
(iPrO) ₂ P(O)H	166.16	I	97	1000	252	0.25	42
(MeO) ₂ P(O)H	110.05	A	98	500	55.7	0.11	12
(MeO) ₂ P(O)H	110.05	H	98	2500	180	0.07	8
(PhO) ₂ P(O)H	234.19	A		500	69.6	0.14	33
(PhO) ₂ P(O)H	234.19	H		3000	150	0.05	12
(PhO) ₃ P	310.29	A	97	3000	178.5	0.06	18
(PhO) ₃ P	310.29	D	97	2500	114	0.05	14
(PhO) ₃ P	310.29	G	97	2000	156	0.08	24
(PhO) ₃ P	310.29	H	97	2500	145	0.06	18
(R)-BINAP	622.67	A		0.5	58.3	116.60	72603
(R)-BINAP	622.67	D	98	5	408	81.60	50810
(R)-BINAP	622.67	G	98	5	288	57.60	35866
(R)-SEGPPOS	610.57	A	>94	0.1	34.6	346.00	211257
(R)-SEGPPOS	610.57	E	>99	1	156	156.00	95249
(R)-SEGPPOS	610.57	G	98	5	341	68.20	41641
(S)-(-)-1-Phenylethylamine	121.18	A	98	100	146	1.46	177
(S)-(-)-1-Phenylethylamine	121.18	D	98	500	479	0.96	116
(S)-(-)-1-Phenylethylamine	121.18	H	98	2000	345	0.17	21
(S)-BINAP	622.67	A		0.5	76.7	153.40	95518
(S)-BINAP	622.67	D	97	5	317	63.40	39477
(S)-BINAP	622.67	G	98	5	288	57.60	35866
(S)-SEGPPOS	610.57	A	>94	0.1	38.1	381.00	232627
(S)-SEGPPOS	610.57	E	>99	1	143	143.00	87312
(S)-SEGPPOS	610.57	G	98	5	341	68.20	41641
(<i>t</i> -Bu) ₃ P	202.32	A	98	10	276	27.60	5584

(t-Bu) ₃ P	202.32	D	98	5	276	55.20	11168
(t-Bu) ₃ P	202.32	G	99	25	680	27.20	5503
[C4-mim]BF ₄	226.03	D		50	202	4.04	913
[C4-mim]BF ₄	226.02	E		100	298	2.98	674
[C4-mim]Br	219.12	A		50	99.7	1.99	437
[C4-mim]Br	219.12	E		5	57	11.4	2498
[C4-mim]Cl	174.67	D		50	92	1.84	323
[C4-mim]Cl	174.675	E		100	128	1.28	224
[C4-mim]NO ₃	201.22	A		50	749	14.98	3014
[C4-mim]NTf ₂	419.36	A		5	488	97.6	40929
[C4-mim]NTf ₂	419.36	E		25	480	19.20	8052
[C4-mim]PF ₆	284.18	A		250	771	3.08	876
[C4-mim]PF ₆	284.19	D		100	258	2.58	733
[C4-mim]PF ₆	284.18	E		25	87	3.48	989
1-bromobutane	137.02	A	99	2500	167	0.07	9
1-bromobutane	137.03	D	98+	10000	300	0.03	4
1-bromobutane	137.02	E	99	500	27	0.05	7
1-bromobutane	137.02	F	99	12760	468	0.04	5
1-bromobutane	137.03	H	99	5000	135	0.03	4
1-bromooctane	193.13	A	98	500	60.8	0.12	23
1-bromooctane	193.13	D	98+	5000	307	0.06	12
1-bromooctane	193.13	E	99	559	48	0.09	17
1-bromooctane	193.13	H	99	4000	199	0.05	10
1-chloro-4-iodobutane	218.46	A	98	44.625	281	6.29	1373
1-chloro-4-iodobutane	218.46	E		25	138	5.52	1206
1-chloro-4-iodobutane	218.47	H	98	500	1495	2.99	653
1-methylimidazole	82.1	A	99	3000	430	0.14	12
1-methylimidazole	82.11	D	99	2000	273	0.14	11
1-methylimidazole	82.11	E	99	500	92	0.18	15
1-methylimidazole	82.11	F	99	5000	604	0.12	10
1-methylimidazole	82.11	H	99	4000	280	0.07	6
1-octene	112.21	A	98	5000	229	0.05	5
1-octene	112.21	D	99	1787.5	82	0.05	5
1-octene	112.21	F	99	7150	242	0.03	4
1-octene	112.21	H	97	500	36	0.07	8
1-octene	112.21	J	98	12000	241.8	0.02	2
1,1,3,3-Tetramethylguanidine	115.18	A	99	25000	2160	0.09	10
1,1,3,3-Tetramethylguanidine	115.18	D	99	459	170	0.37	43
1,1,3,3-Tetramethylguanidine	115.18	H	98	2500	310	0.12	14
1,2-dichloroethane	98.96	H	99	251200	1650	0.01	1

2-furoyl chloride	130.53	A	95	100	123	1.23	161
2-furoyl chloride	130.53	D	95	250	169	0.68	88
2-furoyl chloride	130.53	E		500	298	0.60	78
2-furoyl chloride	130.53	H	97	5	10	2.00	261
2-furoyl chloride	130.53	K	97	10000	3208	0.32	42
2-furoyl chloride	130.53	L	98	500	396	0.79	103
2-iodopropane	169.99	A	99	500	134	0.27	45
2-iodopropane	169.99	D	98+	500	133	0.27	45
2-iodopropane	169.99	E		500	210	0.42	71
2-iodopropane	169.99	F	98+	851.5	192	0.23	38
2-iodopropane	169.99	H	99	500	113	0.23	38
2-iodopyridine	205	A	98	5	109	21.70	4449
2-iodopyridine	205	D	95	25	220	8.80	1804
2-iodopyridine	205	M	97	5	20	4.00	820
2-naphthaldehyde	156.18	A	98	100	424	4.24	662
2-naphthaldehyde	156.18	C		1000	680	0.68	106
2-naphthaldehyde	156.18	D	98	100	359	3.59	561
2-naphthaldehyde	156.18	H	98+	500	440	0.88	137
2-vinylpyridine	105.14	A	97	487.5	110	0.23	24
2-vinylpyridine	105.14	D	97	487	85	0.17	18
2-vinylpyridine	105.14	E		487	134	0.28	29
2-vinylpyridine	105.14	F	97	975	160	0.16	17
2-vinylpyridine	105.14	H	95	25	27	1.08	114
2,5-dihydroxybenzaldehyde	138.12	A	98	25	308	12.30	1699
2,5-dihydroxybenzaldehyde	138.12	D	98+	25	259	10.36	1431
2,5-dihydroxybenzaldehyde	138.12	E		5	62	12.40	1713
2,5-dihydroxybenzaldehyde	138.12	F	99	25	232	9.26	1279
2,5-dihydroxybenzaldehyde	138.12	H	98	1	25	25.00	3453
2,5-dimethoxy-2,5-dihydrofuran	130.14	A	97	100	86	0.86	112
2,5-dimethoxy-2,5-dihydrofuran	130.14	D	97	1000	414	0.41	54
2,5-dimethoxy-2,5-dihydrofuran	130.14	H	99	25	29	1.16	151
2,5-dimethoxy-2,5-dihydrofuran	130.14	O	97	1000	365	0.37	48
20% Pd(OH) ₂ -C	140.43	A	20	100	4730	47.30	6642
20% Pd(OH) ₂ -C	140.43	D	20	10	1657	165.70	23269
20% Pd(OH) ₂ -C	140.43	H		10	700	70.00	9830
3-Aminopropyltriethoxysilane	221.37	A	>98	465	203	0.44	97
3-Aminopropyltriethoxysilane	221.37	H	97	500	49	0.10	22
3-Aminopropyltriethoxysilane	221.37	J	85	16000	464	0.03	6
3,4-dibromothiophene	241.93	A	99	25	352	14.08	3406
3,4-dibromothiophene	241.94	D	98+	25	310	12.40	3000

3,4-dibromothiophene	241.94	E	98	25	147	5.88	1423
3,4-dibromothiophene	241.94	F	97	25	225	9.02	2181
3,4-dibromothiophene	241.94	H	98+	500	180	0.36	87
3,4-Dibromothiophene	241.93	N	97	1000	250	0.25	60
3,4-Dibromothiophene	241.93	O	95	1000	325	0.33	79
3,4-Dibromothiophene	241.93	P	98	1000	194	0.19	47
3A molecular sieves		A		5000	393	0.08	0
3A molecular sieves		D		5000	316	0.06	0
4-phenyl-1-butene	132.21	A	99	44	340	7.73	1022
4-phenyl-1-butene	132.21	E	99	22	154	7.00	925
4-phenyl-1-butene	132.21	H	98	25	105	4.20	555
4,4,5,5-tetramethyl-1,3,2-dioxaphospholane 2-oxide	164.14	A	95	1	78	78.40	12869
4,4,5,5-tetramethyl-1,3,2-dioxaphospholane 2-oxide	164.14	E	95	5	248	49.60	8141
5-bromo-1-pentene	149.03	A	95	25	162	6.46	963
5-bromo-1-pentene	149.03	D	96	25	161	6.44	960
5-bromo-1-pentene	149.03	E		25	58	2.32	346
5-bromo-1-pentene	149.03	F	95	50	289	5.77	860
5-bromo-1-pentene	149.03	H	98	500	570	1.14	170
5-bromo-1-pentene	149.03	L		250	529	2.12	315
9-Mesityl-10-methylacridinium perchlorate	411.88	A	95	0.1	110	1100.00	453068
9-Mesityl-10-methylacridinium perchlorate	411.88	I	98	1	235	235.00	96792
9-Mesityl-10-methylacridinium perchlorate	411.88	R	98	1	193	193.00	79493
acetic acid	60.05	H	99	209800	995	0.00	0
acetonitrile	41.05	A		14148	1064	0.08	3
acetonitrile	41.05	H	99	157200	1295	0.01	1
Ag ₂ CO ₃	275.75	A	99	100	293	2.93	808
Ag ₂ CO ₃	275.75	D	99.5	100	303	3.03	836
Ag ₂ CO ₃	275.75	G	99+	50	244	4.88	1346
Ag ₂ CO ₃	275.75	Q	99	100	277	2.77	764
AgCl	143.32	A	99	100	313	3.13	449
AgCl	143.32	D	99.9	500	1957	3.91	561
AgCl	143.32	G	99.9	50	180	3.60	516
AgCl	143.32	Q	>99	1000	1851	1.85	265
AgNO ₃	169.87	A	>99	500	1154	2.31	392
AgNO ₃	169.87	A	99+	500	1186	2.37	403
AgNO ₃	169.87	D	>99.9	500	1054	2.11	358
AgNO ₃	169.87	D	99.9+	500	1070	2.14	364
AgNO ₃	169.87	F	99.85	2500	2640	1.06	179
AgNO ₃	169.87	G	99.9	500	970	1.94	330

AgNO ₃	169.87	G	99.9	500	970	1.94	330
AgNO ₃	169.87	H	99	250	249	1.00	169
AgNO ₃	169.87	H	99	250	249	1.00	169
AgNO ₃	169.87	Q	>99	500	1168	2.34	397
AgOAc	166.91	A	99	100	410	4.10	684
AgOAc	166.91	D	99	100	290	2.90	484
AgOAc	166.91	G	99	50	156	3.12	521
AgOAc	166.91	H	99	100	225	2.25	376
AgOAc	166.91	Q	99	500	1646.71	3.29	550
AgPF ₆	252.83	A	98	10	264	26.40	6675
AgPF ₆	252.83	D	98	25	396	15.84	4005
AgPF ₆	252.83	E		5	105	21.00	5309
AgPF ₆	252.83	F	98	25	378	15.12	3823
AgPF ₆	252.83	G	99	25	318	12.72	3216
AgPF ₆	252.83	H	98	100	995	9.95	2516
AIBN	164.21	A	98	100	124	1.24	204
AlCl ₃	133.34	A	99	500	106	0.21	28
AlCl ₃	133.34	D	99	5000	269	0.05	7
AlCl ₃	133.34	E	98	500	40	0.08	11
AlCl ₃	133.34	G	99	1000	192	0.19	26
AlCl ₃	133.34	H	99	4000	160	0.04	5
Allylamine	57.09	A	98	761	177	0.23	13
Allylamine	57.1	D	98+	380.5	176	0.46	26
Allylamine	57.1	F	98+	190.25	54	0.28	16
Allylamine	57.1	H	98	100	40	0.40	23
Amano Lipase from <i>Pseudomonas fluorescens</i>		A		50	135	2.70	0
ammonium acetate	77.08	A	>97	2500	188	0.08	6
ammonium acetate	77.08	D	97	5000	182	0.04	3
ammonium acetate	77.08	H	99	25000	675	0.03	2
Ammonium hypophosphite	83.03	A	>97	1000	174	0.17	14
anhydrous ether	74.12	A	98	141200	1963	0.01	1
anhydrous ether	74.12	D	99	3000	172	0.06	4
anhydrous ether	74.12	H	99.99	12708	250	0.02	1
Anilinium hypophosphite	159.12	A	97	25	39	1.56	248
As ₂ O ₃	197.84	A	99	1000	216	0.22	43
As ₂ O ₃	197.84	D	99.99	250	610	2.44	483
As ₂ O ₃	197.84	G		250	78	0.31	62
AsCl ₃	181.28	A	99.99	50	259	5.17	937
AsCl ₃	181.28	D	99.999	100	326	3.26	591

AsCl ₃	181.28	G	99	100	238	2.38	431
AuCl	232.42	A	99.9	5	913	182.60	42440
AuCl	232.42	D	99.9	5	865	173.00	40209
AuCl	232.42	G	97	5	662	132.40	30772
AuCl	232.42	Q	>99	5	787	157.30	36560
AuCl ₃	303.33	A	99	5	605	121.00	36703
AuCl ₃	303.33	D	99.9	5	503	100.60	30515
AuCl ₃	303.33	G	99	5	442	88.40	26814
AuCl ₃	303.33	Q	99	5	516	103.20	31304
BaCl ₂	208.23	A	99.9	10	37	3.66	762
BaCl ₂	208.25	D	99.95	5	38	7.64	1591
BaCl ₂	208.24	G	>98	100	25	0.25	52
BCl ₃	117.17	A	99.9	454	531	1.17	137
benzophenone	182.22	A	99	2000	64	0.03	6
benzophenone	182.22	D	99	5000	171	0.03	6
benzophenone	182.22	H	98	500	66	0.13	24
benzoquinone	108.1	A	>85	1000	138.5	0.14	15
benzoquinone	108.1	D	85	5000	357	0.07	8
benzoquinone	108.1	H	90	5000	305	0.06	7
benzyl alcohol	108.14	A	99.8	2090	329	0.16	17
benzyl alcohol	108.14	D	99	2500	99	0.04	4
benzyl alcohol	108.14	H	99	4180	165	0.04	4
benzyl amine	107.16	A	>99	500	66	0.13	14
benzyl amine	107.16	D	99	5000	419	0.08	9
benzyl amine	107.16	H	99	3000	199	0.07	7
Benzyl bromide	171.04	A	98	2500	550	0.22	38
Benzyl bromide	171.04	D	99	1000	291	0.29	50
Benzyl bromide	171.04	H	98	2500	265	0.11	18
Benzyl chloride	126.58	A	99	2000	94	0.05	6
Benzyl chloride	126.58	D	99	10000	262	0.03	3
Benzyl chloride	126.58	H	99	4000	128	0.03	4
benzylmagnesium chloride	150.89	A	1M		194		243
benzylmagnesium chloride	150.89	D	1M		838		1676
benzylmagnesium chloride	150.89	G	1-2M		446		446
BeO	25.01	A	99.98	100	801	8.01	200
BeO	25.01	D	99	25	144	5.75	144
BeO	25.01	G	99.95	25	195	7.80	195
Bi(OAc) ₃	386.12	D	99	250	307	1.23	474
Bi(OAc) ₃	386.12	G	99	100	386	3.86	1490
Bi ₂ SO ₄	706.13	D	99	100	83	0.83	584

BiCl ₃	315.34	A	98	500	884	1.77	558
BiCl ₃	315.34	D	99.9	100	209	2.09	659
BiCl ₃	315.34	E	97	250	116	0.46	146
BiCl ₃	315.34	G	99	100	162	1.62	511
BiCl ₃	315.34	H	98	500	179	0.36	113
Br ₂	159.81	A		500	154	0.31	49
Br ₂	159.81	D	99.5	2500	867	0.35	55
Br ₂	159.81	G	99.5	1000	107	0.11	17
Bu ₄ NI	369.37	A	98	500	244	0.49	180
Bu ₄ NI	369.37	D	98	1000	325	0.33	120
Bu ₄ NI	369.37	H	98	500	110	0.22	81
butyl nitrate	119.12	H		1	282	282.00	33592
C11H23CO2H (lauric acid)	200.32	A	>98	25000	375	0.01	3
C11H23CO2H (lauric acid)	200.32	E	>98	500	22	0.04	9
C11H23CO2H (lauric acid)	200.32	H	99	100	45	0.45	22
CaCl ₂	110.98	A	≥96	100	74	0.74	82
CaCl ₂	110.98	D	≥96	50	50	1.00	111
CaCl ₂	110.98	H	95	20000	195	0.01	1
CaCl ₂	110.98	Q	96	25	14	0.56	62
CdCl ₂	183.32	A		100	100	1.00	183
CdCl ₂	183.32	D	99	500	299	0.60	110
CdCl ₂	183.32	G	99	250	197	0.79	144
CdCl ₂	183.32	H	99	25	14	0.56	103
CeCl ₃	246.48	A	99.9	50	333	6.66	1642
CeCl ₃	246.48	D	99.5	250	699	2.80	689
CeCl ₃	246.48	F	99.9	100	565	5.65	1392
CeCl ₃	246.48	G	99.9	100	366	3.66	902
CeCl ₃	246.48	H	99	500	245	0.49	121
Chloro-1,5-cyclooctadiene iridium (I) dimer	671.7	A		2	323	161.50	108480
Chloro-1,5-cyclooctadiene iridium (I) dimer	671.71	D		5	811	162.20	108951
Chloro-1,5-cyclooctadiene iridium (I) dimer	671.7	E		1	139	139.00	93366
Chloro-1,5-cyclooctadiene iridium (I) dimer	671.7	F		5	517	103.30	69387
Chloro-1,5-cyclooctadiene iridium (I) dimer	671.71	G	99	10	936	93.60	62872
chlorodicyclohexylphosphine	232.73	A	97	5	250	49.90	11613
chlorodicyclohexylphosphine	232.73	E		5	217	43.40	10100
chlorodicyclohexylphosphine	232.73	F	97	5	214	42.75	9949
chlorodicyclohexylphosphine	232.73	G	98	5	208	41.60	9682
chloroform	118.38	H	99.9	5968	110	0.02	2

choline chloride	139.62	A		5000	341	0.07	10
choline chloride	139.62	E		500	39	0.08	11
Cl ₂	70.91	A	99.5	454	339	0.75	53
Co(acac) ₃	356.26	A	98	100	156	1.56	554
Co(acac) ₃	356.26	D		100	117	1.17	417
Co(acac) ₃	356.26	G	98	250	227	0.91	323
Co(acac) ₃	356.26	Q		100	120	1.20	428
Co(OAc) ₂	177.02	A	99.995	10	157	15.70	2779
Co(OAc) ₂	177.02	D	98+	250	784	3.14	555
Co(Oac) ₂	177.02	H	99	25	165	6.60	1168
CoCl ₂	129.84	A	97	500	460	0.92	119
CoCl ₂	129.84	D	97	500	275	0.55	71
CoCl ₂	129.84	G	>99	100	102	1.02	132
CoCl ₂	129.84	Q	97	500	282	0.56	73
Cr ₂ O ₃	151.99	A	98	100	624	6.24	948
Cr ₂ O ₃	151.99	D	>98	2000	81	0.04	6
Cr ₂ O ₃	151.99	G	98	1000	77	0.08	12
Cr ₂ O ₃	151.99	Q	99	2500	167	0.07	10
CrCl ₂	122.9	A	95	25	629	25.16	3092
CrCl ₂	122.9	D	99.9	25	237	9.48	1165
CrCl ₂	122.9	G	99.9	25	296	11.84	1455
CrCl ₂	122.9	Q	97	100	533	5.33	655
CrCl ₃	158.36	A	99	100	315	3.15	499
CrCl ₃	158.36	D	98	250	200	0.80	127
CrCl ₃	158.36	G	99	250	208	0.83	132
CrCl ₃	158.36	Q	99	250	208	0.83	131
CrO ₃	99.99	A	>99.99	25	75	2.99	299
CrO ₃	99.99	D	99	5000	182	0.04	4
CrO ₃	99.99	G	99.5	2000	176	0.09	9
CrO ₃	99.99	H	99	2500	66	0.03	3
CrO ₃	99.99	Q	99.5	5000	191	0.04	4
Cs ₂ CO ₃	325.82	A	99	500	313	0.63	204
Cs ₂ CO ₃	325.82	D	99	1000	463	0.46	151
Cs ₂ CO ₃	325.82	G	99+	500	224	0.45	146
Cs ₂ CO ₃	325.82	H	99	100	18	0.18	59
CsCl	168.36	A	99.90	25	65	2.61	440
CsCl	168.36	D	99.90	25	50	2.02	339
CsCl	168.36	G	>99	25	37	1.48	249
CsCl	168.36	H	99	100	60	0.60	101
CuCl	99	A	97	2000	182	0.09	9

CuCl	99	D	97	2000	108	0.05	5
CuCl	99	G	>97	1000	108	0.11	11
CuCl	99	H	98	10000	595	0.06	6
CuCl	99	Q	97	2000	113	0.06	6
CuCl ₂	134.45	A	97	1000	172	0.17	23
CuCl ₂	134.45	D	98	1000	106	0.11	14
CuCl ₂	134.45	G	>98	500	88	0.18	24
CuCl ₂	134.45	Q	99	2500	113	0.05	6
CuI	190.44	A	98	1000	303	0.30	58
CuI	190.44	D	98	1000	254	0.25	48
CuI	190.44	G	98	500	130	0.26	50
CuI	190.44	H	98	1000	104	0.10	20
Cy ₂ PCI	232.74	A	97	5	250	49.90	11614
Cy ₂ PCI	232.74	P	98	100	537	5.37	1250
Cy ₂ PCI	232.74	S	94	100	264	2.64	615
cyclohexane	84.16	H	99	155800	1295	0.01	1
DBU	152.24	A	98	2500	855	0.34	52
DBU	152.24	D	99	500	212	0.42	65
DBU	152.24	H	99	4000	310	0.08	12
dibenzyl phosphite	262.24	A		100	336	3.36	881
dibenzyl phosphite	262.24	D	90+	100	250	2.50	656
dibenzyl phosphite	262.25	E		250	473	1.89	496
dibenzyl phosphite	262.25	F	95	100	247	2.47	648
dibenzyl phosphite	262.24	H		100	243	2.43	637
Dichloro (3-phenyl-1H-inden-1-ylidene) bis(tricyclohexylphosphine) Ru(II)	923.07	A		5	368	73.60	67938
Dichloro (3-phenyl-1H-inden-1-ylidene) bis(tricyclohexylphosphine) Ru(II)	923.09	E		1	178	178.00	164310
Dichloro (3-phenyl-1H-inden-1-ylidene) bis(tricyclohexylphosphine) Ru(II)	923.07	G		5	344	68.80	63507
dichloromethane	84.93	A		26400	690	0.03	2
dichloromethane	84.93	H	99	265000	1495	0.01	0
diethyl chlorophosphite	156.55	A	95	100	286	2.86	447
diethyl chlorophosphite	156.55	D	97	25	112	4.48	701
diethyl ether	74.12	A		14120	812	0.06	4
diethyl ether	74.12	F		17650	468	0.03	2
Diethyl ether (anhydrous)	74.12	H	99.9	12708	250	0.02	1
diiodomethane	267.84	A	99	500	343	0.69	184
diiodomethane	267.84	D	99	1000	408	0.41	109
diiodomethane	267.84	H	99	500	180	0.36	96
dimethylformamide	73.09	A		16992	837	0.05	4
dimethylformamide	73.09	H	>99	188800	850	0.00	0

dimethylglyoxime	116.12	A	>97	500	131.5	0.26	31
dimethylglyoxime	116.12	D	99	2500	439	0.18	20
dimethylglyoxime	116.12	H	95	100	30	0.30	35
dimethylsulfoxide	78.13	A		25000	363	0.01	1
dioxane	88.11	A		18540	987	0.05	5
dioxane	88.11	H	99	200000	3395	0.02	1
DME	90.12	A	99.5	15606	1233	0.08	7
DME	90.12	D	99+	2167	220	0.10	9
DME	90.12	H	99	173400	3795	0.02	2
dppb	426.48	A	98	25	184	7.36	3139
dppb	426.48	D	98	25	171	6.84	2917
dppb	426.48	E	>98	25	114	4.56	1945
dppb	426.48	F	98	25	156	6.23	2655
dppb	426.48	G	98	50	351	7.02	2994
dppb	426.48	H	98	100	86	0.86	367
dppe	398.42	A	97	50	240.5	4.81	1916
dppe	398.42	D	97+	100	390	3.90	1554
dppe	398.42	F	98+	250	853.23	3.41	1360
dppe	398.42	G	99	100	297	2.97	1183
dppe	398.42	H	98	100	59	0.59	235
dppf	554.38	A	97	250	1555	6.22	3448
dppf	554.38	D	97	25	437	17.48	9691
dppf	554.38	G	99	250	1,285	5.14	2850
dppf	554.38	H	98	100	79	0.79	438
dppfPdCl ₂	731.72	D		1	59	59.20	43318
dppfPdCl ₂	721.7	H	96	100	1050	10.50	7578
dppfPdCl ₂ .CH ₂ Cl ₂	816.64	A		250	5250	21.00	17149
dppfPdCl ₂ .CH ₂ Cl ₂	816.64	G		25	396	15.84	12936
dppp	412.44	A	97	25	175	7.00	2887
dppp	412.44	D	97	100	622	6.22	2565
dppp	412.44	F	97	100	575.77	5.76	2375
dppp	412.44	G	98	50	260	5.20	2145
dppp	412.44	H	98	100	98	0.98	404
dpppPdCl ₂	589.77	A		2	123	61.50	36271
dpppPdCl ₂	589.77	D		1	225	225.00	132698
dpppPdCl ₂	589.79	E		5	293	58.60	34562
dpppPdCl ₂	589.77	G		5	252	50.40	29724
DyCl ₃	268.86	A	99.99	25	782	31.28	8410
DyCl ₃	268.86	D	99.98	25	822	32.88	8840
DyCl ₃	268.86	G	99.9	50	238	4.76	1280

EG (ethylene glycol)	62.07	A	>99	30000	839	0.03	2
EG (ethylene glycol)	62.07	D	99	10000	205	0.02	1
EG (ethylene glycol)	62.07	H	99	222600	795	0.00	0
ErCl ₃	273.62	A	99.9	25	651	26.04	7125
ErCl ₃	273.62	D	99.9	250	1113	4.45	1218
ErCl ₃	273.62	G	99.9	25	182	7.28	1992
Et ₃ B	98	A	>95	100	391	3.91	383
Et ₃ B	98	G	98	100	370	3.70	363
Et ₃ B	98	T		10	200	20.00	1960
Et ₃ B (1 M)		A		800 mL	344.5		430
Et ₃ N	101.19	A	>99.5	20000	497	0.02	3
Et ₃ N	101.19	D	99+	3000	132	0.04	4
Et ₃ N	101.19	H	99.5	150000	1800	0.01	1
Et ₃ SiOTf	264.34	A	99	50	322	6.44	1702
Et ₃ SiOTf	264.34	H	99	1000	1050	1.05	278
Et ₃ SiOTf	264.34	J	99	2500	2400	0.96	254
Et ₃ SiOTf	264.34	M	99	5000	1248	0.25	66
ethanol	46.07	H	>99.5	157800	7800	0.05	2
ethyl acetate	88.11	A		16236	758	0.05	4
ethyl acetate	88.11	H	99.9	180400	795	0.00	0
EuCl ₂	222.87	A	99.99	5	575	115.00	25630
EuCl ₃	258.32	A	>99.9	10	404	40.40	10436
EuCl ₃	258.32	D	99.99	25	748	29.92	7729
EuCl ₃	258.32	G	99.9	10	252	25.20	6510
FeCl ₂	126.75	A	98	250	494	1.97	250
FeCl ₂	126.75	D	99.5	250	427	1.71	216
FeCl ₂	126.75	G	98	100	254	2.54	322
FeCl ₂	126.75	Q	97	250	397	1.59	201
FeCl ₃	162.2	A	97	20000	543	0.03	4
FeCl ₃	162.2	D	98	25000	226	0.01	1
FeCl ₃	162.2	G	98	5000	88	0.02	3
FeCl ₃	162.2	H	98	500	45	0.09	15
FeCl ₃	162.2	Q	98	1000	37	0.04	6
furan	68.07	A	98	468	56	0.12	8
furan	68.07	D	99	468	70	0.15	10
furan	68.07	H	99	100	20	0.20	14
Ga ₂ Cl ₄	281.26	A	99.999	5	189	37.70	10604
Ga ₂ Cl ₄	281.26	D	99.999	1	46	46.10	12966
Ga ₂ O ₃	187.44	A	99.99	50	327	6.53	1224
Ga ₂ O ₃	187.44	D	99.99	25	198	7.92	1485

GaCl ₃	176.08	A	99.99	50	286	5.72	1007
GaCl ₃	176.08	D	99.999	100	397	3.97	699
GaCl ₃	176.08	E	99.999	25	153	6.12	1078
GaCl ₃	176.08	G	99.999	100	288	2.88	507
GdCl ₃	263.61	A	99.99	25	585	23.40	6168
GdCl ₃	263.61	D	99.99	25	492	19.68	5188
GdCl ₃	263.61	F	99.9	25	411	16.44	4334
GdCl ₃	263.61	G	99.9	50	304	6.08	1603
Ge ₃ N ₄	273.95	A	99.99	5	204	40.70	11150
GeBr ₂	232.45	A	97	5	182	36.40	8461
GeCl ₂ . dioxane	231.65	A		10	248	24.80	5745
GeCl ₂ . dioxane	231.65	G		10	192	19.20	4448
GeCl ₄	214.45	A	99.99	25	365	14.60	3131
GeCl ₄	214.45	D	99.999 9	500	2420	4.84	1038
GeCl ₄	214.45	G	99.99	50	272	5.44	1167
GeO ₂	104.64	A	99.99	25	221	8.82	923
GeO ₂	104.64	D	99.99	50	732	14.64	1532
GeO ₂	104.64	G	99.999	25	148	5.92	619
Grubbs 1st generation	822.96	A	97	50	3040	60.80	50036
Grubbs 2nd generation	848.97	A		10	1640	164.00	139231
H ₃ PO ₂	66	A	50	16000	1133	0.07	5
H ₃ PO ₂	66	D	50	2000	169	0.08	6
H ₃ PO ₂ •NH ₃	83.03	A	97	1000	174	0.17	14
H ₃ PO ₂ •PhNH ₂	159.12	A	97	25	39	1.56	248
H ₃ PO ₂ •PhNH ₂	159.12	U	97	10	90	9.00	1432
H ₃ PO ₂ •PhNH ₂	159.12	V	97	500	1308	2.62	416
H ₃ PO ₃	82	A	99	8000	666	0.08	7
H ₃ PO ₃	82	D	98	5000	287	0.06	5
H ₃ PO ₄	98	A	85	25000	235	0.01	1
H ₃ PO ₄	98	D	85	10000	320	0.03	3
H ₃ PO ₄	98	G	85	1000	52	0.05	5
H ₃ PO ₄	98	H	85	330000	1276	0.00	0
HBr	80.91	A	48	745	48	0.06	5
HBr	80.91	D	47-49	5960	340	0.06	5
HBr	80.91	G	48	5000	449	0.09	7
HCl	36.46	A	37	18000	366	0.02	1
HCl	36.46	D	36	3000	41	0.01	0
Hexamethyldisilazane	273.5	A	>99	765	274	0.36	98

Hexamethyldisilazane	273.5	D	98+	100	260	2.60	711
Hexamethyldisilazane	273.5	G	>97	500	109	0.22	60
Hexamethyldisilazane	273.5	H	98	13770	295	0.02	6
hexane(s)	86.18	A		11862	663	0.06	5
hexane(s)	86.18	F		16475	445	0.03	2
hexane(s)	86.18	H	99	131800	2200	0.02	1
HfCl ₄	320.3	A	98	50	93	1.86	597
HfCl ₄	320.3	D	>98	25	48	1.90	609
HfCl ₄	320.3	F	99.00	25	70	2.78	890
HfCl ₄	320.3	H	96	5	48	9.60	3075
Hg ₂ Cl ₂	472.09	A	99.5	100	123	1.23	581
Hg ₂ Cl ₂	472.09	D	99.5	500	209	0.42	197
Hg ₂ Cl ₂	472.09	G	99.5	500	432	0.86	408
HgCl ₂	271.5	A	99	1000	350	0.35	95
HgCl ₂	271.5	D	98+	1000	291	0.29	79
HgCl ₂	271.5	H	99	500	145	0.29	79
HgCl ₂	271.5	G	99+	250	235	0.94	255
HgCl ₂	271.5	F	99.5	1000	241.5	0.24	65
HI	127.91	A	55	1700	610	0.36	46
HI	127.91	D	55-58	3400	731	0.22	28
HMDS	201.4	A	>99	765	274	0.36	72
HMDS	201.4	D	98+	1912.5	260	0.14	27
HMDS	201.4	E	98	382.5	71	0.19	37
HMDS	201.4	F	98	1912.5	334	0.17	35
HMDS	201.4	G	97	500	109	0.22	44
HMDS	201.4	H	98	13770	295	0.02	4
HoCl ₃	271.29	A	99.9	5	189	37.80	10255
HoCl ₃	271.29	D	99.9	25	400	16.00	4341
HoCl ₃	271.29	G	99.9	25	254	10.16	2756
Hoveyda-Grubbs catalyst 1st generation	600.61	A		2	789	394.50	236941
I ₂	253.81	A	99.8	12000	3155	0.26	67
I ₂	253.81	D	99.8	500	212	0.42	108
I ₂	253.81	E	98	500	52	0.10	26
imidazole	68.08	A	>99	1000	262	0.26	18
imidazole	68.08	D	99	2500	267	0.11	7
imidazole	68.08	E		500	76	0.15	10
imidazole	68.08	F	99	10000	999	0.10	7
imidazole	68.08	H	99+	100000	2995	0.03	2
InBr	194.72	A	99.998	5	217	43.30	8431
InBr	194.72	D	99.998	25	602	24.08	4689

InCl	150.27	A	99.999	2	201	100.25	15065
InCl	150.27	D	99.995	25	412	16.48	2476
InCl	150.27	G	99.99	10	310	31.00	4658
InCl ₂	185.72	A	99.9	10	204	20.40	3789
InCl ₃	221.18	A	98	50	343	6.85	1515
InCl ₃	221.18	D	98	25	143	5.72	1265
InCl ₃	221.18	E	99	25	184	7.36	1628
InCl ₃	221.18	G	99.999	100	506	5.06	1119
InCl ₃	221.18	H	98	100	178	1.78	394
Iodobenzene	204.01	A	98	500	172	0.34	70
Iodobenzene	204.01	D	98	1000	348	0.35	71
Iodobenzene	204.01	E		500	149	0.30	61
Iodobenzene	204.01	F	98	4550	987	0.22	44
Iodobenzene	204.01	H	98	500	110	0.22	45
iodomesitylene	246.09	D	98	100	586	5.86	1442
iodomesitylene	246.09	H	98	100	175	1.75	431
iPr ₂ NEt	129.25	A	>99	7420	1940	0.26	34
iPr ₂ NEt	129.25	X	95-98	5000	343	0.07	9
iPr ₂ NEt	129.25	D	99	1868	399	0.21	28
iPr ₂ NEt	129.25	H	99	150000	4995	0.03	4
IrCl ₃	298.58	A		2	306	152.75	45608
IrCl ₃	298.58	D		5	328	65.60	19587
IrCl ₃	298.58	G	99.95	2	201	100.50	30007
IrCl ₃	298.58	H	99.95+	0.1	30	300.00	89574
IrCl ₃	298.58	Q	99.95	5	340	68.00	20303
Isocyanate, polymer-bound		A	2 mmol/g	25	673	26.92	13860
Isocyanate, polymer-bound		Y	2 mmol/g	100	960	9.60	4900
isopropenyl acetate	100.12	A	>99	25000	793	0.03	3
isopropenyl acetate	100.12	D	99	2293	230	0.10	10
isopropenyl acetate	100.12	H	99	100	15	0.15	15
K ₂ CO ₃	138.21	A	>99	12000	709	0.06	8
K ₂ CO ₃	138.21	D	99	10000	190	0.02	3
K ₂ CO ₃	138.21	G	99+	2000	153	0.08	11
K ₂ CO ₃	138.21	F	99+	25000	955.32	0.04	5
K ₂ CO ₃	138.21	H	99	25000	280	0.01	2
K ₂ S ₂ O ₈	270.32	A	99	500	78	0.16	42
K ₂ S ₂ O ₈	270.32	D	97	2500	182	0.07	20
K ₂ S ₂ O ₈	270.33	H	99	2500	95	0.04	10
K ₂ S ₂ O ₈	270.32	Q	98+	25000	679.92	0.03	7

KCl	74.55	A	>99	500	58	0.12	9
KCl	74.55	G	99	500	37	0.07	6
KCl	74.55	H	99	25000	290	0.01	1
KCl	74.55	Q	>99	500	154	0.31	23
KHMDS	199.48	A	0.5M	2L			544
KHMDS	199.48	H	11	55	195	3.55	707
KHMDS	199.48	L	1M	800 ML	483		604
KMnO ₄	158.03	A	>99	2500	259	0.10	16
KMnO ₄	158.03	D	98	10000	386	0.04	6
KMnO ₄	158.04	H	97	10000	236	0.02	4
KMnO ₄	158.03	Q	99+	500	65.31	0.13	21
KOH	56.11	A	>85	12000	456	0.04	2
KOH	56.11	D	85	10000	228	0.02	1
KOH	56.11	H	90	25000	158	0.01	0
KPF ₆	184.06	A	99+	1000	315	0.32	58
KPF ₆	184.07	D	98	1000	272	0.27	50
KPF ₆	184.06	E	99	500	105	0.21	39
KPF ₆	184.06	F	99	2500	630	0.25	46
KPF ₆	184.07	G	99.5	500	135	0.27	50
KPF ₆	184.07	H	99	2500	232	0.09	17
L-Proline	115.13	A	>99	5000	2335	0.47	54
L-Proline	115.13	D	99	500	242	0.48	56
L-Proline	115.13	E	>99	250	49	0.20	23
L-Proline	115.13	H	99	1000	110	0.11	13
LaCl ₃	245.26	A	99.9	50	308	6.16	1511
LaCl ₃	245.26	D	99.9	100	313	3.13	768
LaCl ₃	245.26	F	99.9	250	1024	4.10	1005
LaCl ₃	245.26	G	99.9	100	282	2.82	692
LHMDS	167.33	A	97	250	330	1.32	221
LHMDS	167.33	A	1M	18L	2215		123
LHMDS	167.33	D	1.06M	800mL	342		403
LHMDS	167.33	F	1M	800mL	242		302
LHMDS	167.33	F	95	250	284	1.14	190
LHMDS	167.33	H	1M	18L	2495		139
LiCl	42.39	A	≥99	500	183	0.37	16
LiCl	42.39	D	99	500	143	0.29	12
LiCl	42.39	G	99	250	44	0.18	7
LiCl	42.39	H	99	2500	240	0.10	4
LiNTf ₂	287.09	A	99.95	100	357	3.57	1025
LiNTf ₂	287.08	D	98+	50	184	3.68	1056

LiNTf ₂	287.075	E	99	250	440	1.76	505
LiNTf ₂	287.075	F	99	50	203	4.06	1166
LiNTf ₂	287.08	H	95	100	129	1.29	370
LuCl ₃	281.33	A	99.99	5	486	97.20	27345
LuCl ₃	281.33	D	99.9	5	397	79.40	22338
LuCl ₃	281.33	F	99.9	5	336.11	67.22	18912
LuCl ₃	281.33	G	99.9	5	284	56.80	15980
Me ₂ S	62.13	A		45000	2037	0.05	3
Me ₂ S	62.13	D	99+	845	49.2	0.06	4
Me ₂ S	62.13	H	99	500	25	0.05	3
Me ₂ Si(OEt) ₂	148.28	A	97	432.5	143	0.33	49
Me ₂ Si(OEt) ₂	148.28	D	97	1000	183	0.18	27
Me ₂ Si(OEt) ₂	148.28	E	97	432.5	88	0.20	30
Me ₂ Si(OEt) ₂	148.28	F	97	432.5	109	0.25	37
Me ₂ Si(OEt) ₂	148.28	G	97	250	56	0.22	33
Me ₂ Si(OEt) ₂	148.28	H	97	500	79	0.16	23
Me ₂ Si(OEt) ₂	148.28	J	95-98	2000	144	0.07	11
mesitylene	120.2	A	98	8640	960	0.11	13
mesitylene	120.2	D	98+	2160	250	0.12	14
mesitylene	120.2	H	99	2160	185	0.09	10
methanol	32.04	A		158200	4559	0.03	1
methanol	32.04	F		19775	266	0.01	0
methanol	32.04	H	99.8	158200	480	0.00	0
Methyl(triphenylphosphine)gold(I)	474.29	A	98	0.5	166	332.00	157464
Methyl(triphenylphosphine)gold(I)	474.29	G	99	1	327	327.00	155093
methyldiphenylphosphine	200.21	A	98	50	355	7.10	1421
methyldiphenylphosphine	200.21	D	99	50	350	7.00	1401
methyldiphenylphosphine	200.21	E	99	5	52	10.40	2082
methyldiphenylphosphine	200.21	G	99	100	491	4.91	983
Methyliodide	141.94	A	99	25000	3242	0.13	18
Methyliodide	141.94	D	99	1000	204	0.20	29
Methyliodide	141.94	F	99	2500	521	0.21	30
Methyliodide	141.94	H	99	25000	2200	0.09	12
methylmagnesium bromide (3.0 M in ether)	119.26	A		18 L	1510		28
methylmagnesium bromide (3.0 M in ether)	119.26	D		500 mL	138		92
methylmagnesium bromide (3.0 M in ether)	119.26	H		800 mL	140		58
Methyltriphenylphosphonium bromide	357.22	A	98	500	216	0.43	154
Methyltriphenylphosphonium bromide	357.24	D	98+	1000	362	0.36	129
Methyltriphenylphosphonium bromide	357.23	E		500	108	0.22	77

Methyltriphenylphosphonium bromide	357.23	F	98	2500	740	0.30	106
Methyltriphenylphosphonium bromide	357.23	G	98+	250	141	0.56	201
Methyltriphenylphosphonium bromide	357.24	H	98	500	90	0.18	64
Mg	24.31	A	98	2500	244	0.10	2
Mg	24.31	G	99+	1000	103	0.10	3
Mg	24.31	Z		2500	215	0.09	2
Mg	24.31	H	99	2500	92	0.04	1
MgCl ₂	95.21	A	≥98	1000	58	0.06	6
MgCl ₂	95.22	D	99	1000	35	0.04	3
MgCl ₂	95.22	G	97.5	1000	46	0.05	4
MgCl ₂	95.21	H	98	100	20	0.20	19
Mn(OAc) ₂	173.03	A	98	100	251	2.51	433
Mn(OAc) ₂	173.03	D	>98	1000	451	0.45	78
Mn(OAc) ₂	173.03	Q	99	500	191	0.38	66
Mn(OAc) ₂ .4H ₂ O	245.09	A	>99	2000	133	0.07	16
Mn(OAc) ₂ .4H ₂ O	245.09	D		2000	93.3	0.05	11
Mn(OAc) ₂ .4H ₂ O	245.08	G	>99	1000	70	0.07	17
Mn(OAc) ₂ .4H ₂ O	245.09	G	99+	1000	70	0.07	17
Mn(OAc) ₂ .4H ₂ O	245.09	H	99	100	60	0.60	147
Mn(OAc) ₂ .4H ₂ O	245.09	Q	99+	2500	156.51	0.06	15
Mn(OAc) ₃ .2H ₂ O	268.1	A	97	100	424	4.24	1137
Mn(OAc) ₃ .2H ₂ O	268.1	D	97	10	375	37.50	10054
Mn(OAc) ₃ .2H ₂ O	268.1	G	98	25	130	5.20	1394
Mn(OAc) ₃ .2H ₂ O	268.1	H	97	25	60	2.40	643
Mn(OAc) ₃ .2H ₂ O	268.1	Q	97	100	403	4.03	1080
MnCl ₂	125.84	A	98	2000	73	0.04	5
MnCl ₂	125.84	D	97	10000	236	0.02	3
MnCl ₂	125.84	G	97	2000	59	0.03	4
MnCl ₂	125.84	H	98	25	30	1.20	151
MnCl ₂	125.84	Q	97	2500	84	0.03	4
MnCO ₃	114.95	A		1000	109	0.11	13
MnCO ₃	114.95	D		2000	106	0.05	6
MnCO ₃	114.95	G	90	500	65	0.13	15
MnO	70.94	A	99	500	47	0.09	7
MnO	70.94	D	99	10000	364	0.04	3
MnO	70.94	G	99	2000	126	0.06	4
MnO	70.94	Q	99.99	10	117.4	11.74	833
MnO ₂	86.94	A	>99	500	147	0.29	26
MnO ₂	86.94	D	90	500	82	0.16	14
MnO ₂	86.94	G		250	93	0.37	32

MnO ₂	86.94	Q	90	500	82	0.16	14
MnO ₂ (reagent plus)	86.94	A	>99	500	151	0.30	26
MnO ₂ (reagent plus)	86.94	D	98	10000	384	0.04	3
MnO ₂ (reagent plus)	86.94	G	99+	500	192	0.38	33
MnO ₂ (reagent plus)	86.94	Q	99	2500	443.41	0.18	15
MnO ₂ (tech, activated)	86.94	A	85	12000	600	0.05	4
MnO ₂ (tech, activated)	86.94	D	90	500	81.8	0.16	14
MnO ₂ (tech, activated)	86.94	G		250	93	0.37	32
MnO ₂ (tech, activated)	86.94	Q	80-85	2500	147.8	0.06	5
MnO ₂ (technical)	86.94	H	>85	1000	130	0.13	11
MoCl ₃	202.3	A	99.95	2	70	34.95	7070
MoCl ₃	202.3	D	99.5	10	171	17.10	3459
MoCl ₃	202.3	G	99.5	25	308	12.32	2492
MoCl ₃	202.3	Q	99.5	10	173	17.30	3500
MoCl ₅	273.21	A	95	100	184	1.84	501
MoCl ₅	273.21	D	99.6	1000	1442	1.44	394
MoCl ₅	273.21	G	99.6	1000	1372	1.37	375
MoCl ₅	273.21	Q	99.6	1000	1471	1.47	402
n-butanol	74.12	A	>99.9	20000	400	0.02	1
n-butanol	74.12	D	99.4+	12960	288	0.02	2
n-butanol	74.12	F	99.5	8100	308	0.04	3
n-butanol	74.12	H	99.4+	162000	1495	0.01	1
Na	22.99	A		1000	190	0.19	4
Na	22.99	D	99	2500	244	0.10	2
Na	22.99	G	99+	2500	656	0.26	6
Na ₂ S ₂ O ₈	238.1	A	98	2500	98	0.04	9
Na ₂ S ₂ O ₈	238.1	D	98	5000	102	0.02	5
Na ₂ S ₂ O ₈	238.1	Q	98+	5000	169.62	0.03	8
NaBF ₄	109.79	A	98	10000	377	0.04	4
NaBF ₄	109.79	D	97	2000	143	0.07	8
NaBF ₄	109.79	E	98	500	42	0.08	9
NaBF ₄	109.79	F	98	2500	225	0.09	10
NaBF ₄	109.79	G	98	2000	180	0.09	10
NaBF ₄	109.79	H	98	2500	155	0.06	7
NaCl	58.44	A	≥99	500	42	0.08	5
NaCl	58.44	G	99	1000	28	0.03	2
NaCl	58.44	H	99	50000	295	0.01	0
NaCl	58.44	Q	≥99	500	62	0.12	7
NaH (60)	24	A	60	1200	245.5	0.20	5
NaH (60)	24	D	60	1200	422	0.35	8

NaH (60)	24	H	60	6000	1720	0.29	7
NaH ₂ PO ₂	87.98	A	98	1000	133	0.13	12
NaH ₂ PO ₂ •H ₂ O	105.99	A	99	500	79	0.16	17
NaH ₂ PO ₂ •H ₂ O	105.99	D		1000	70	0.07	7
NaOH	40	A	>97	50000	1025	0.02	1
NaOH	40	D	97	25000	443	0.02	1
NaOH	40	H	98+	25000	95	0.00	0
NbCl ₅	270.17	A	99	50	140	2.79	754
NbCl ₅	270.17	D	99	500	683	1.37	369
NbCl ₅	270.17	G	>99	250	194	0.78	210
NbCl ₅	270.17	H	99.99	1	30	30.00	8105
NbCl ₅	270.17	Q	99.99	25	109	4.37	1180
NCS	133.53	A	98	500	80.9	0.16	22
NCS	133.53	D	98	1000	134	0.13	18
NCS	133.53	H	98	1000	54	0.05	7
NdCl ₃	250.6	A	>99.99	25	854	34.16	8560
NdCl ₃	250.6	D	99.9	100	405	4.05	1015
NdCl ₃	250.6	F	99.9	5	61.32	12.26	3073
NdCl ₃	250.6	G	99.9	50	304	6.08	1524
Ni on silica	90.33	A		100	70	0.70	63
Ni on silica	90.33	D		100	79	0.79	71
Ni on silica	90.33	G		250	156	0.62	56
Ni(acac) ₂	256.91	A	95	50	198	3.96	1017
Ni(acac) ₂	256.91	D	95	500	290	0.58	149
Ni(acac) ₂	256.91	G	95	100	198	1.98	509
Ni(acac) ₂	256.91	Q	98	10	344	34.44	8847
Ni(COD) ₂	275.06	A		2	73	36.40	10012
Ni(COD) ₂	275.06	D	96	10	324	32.40	8912
Ni(COD) ₂	275.06	G	98	10	268	26.80	7372
Ni(COD) ₂	275.06	Q	98	10	344	34.44	9473
Ni(Oac) ₂ •4H ₂ O	248.84	A	98	500	68	0.14	34
Ni(Oac) ₂ •4H ₂ O	248.84	F	99+	2500	187	0.07	19
Ni(Oac) ₂ •4H ₂ O	248.86	G	98+	1000	172	0.17	43
Ni(Oac) ₂ •4H ₂ O	248.86	H	98	2500	170	0.07	17
Ni(Oac) ₂ •4H ₂ O	248.86	J	99	2000	162	0.08	20
NiCl ₂	129.6	A	98	250	167	0.67	86
NiCl ₂	129.6	D	98	500	270	0.54	70
NiCl ₂	129.6	G	98	250	192	0.77	100
NiCl ₂	129.6	H	98	25	25	1.00	130
NiCl ₂	129.6	Q	98	500	270	0.54	70

NiCl ₂ (PPh ₃) ₂	654.17	A		50	144	2.87	1877
NiCl ₂ (PPh ₃) ₂	654.18	D	98	50	126	2.52	1649
NiCl ₂ (PPh ₃) ₂	656.19	E		100	192	1.92	1260
NiCl ₂ (PPh ₃) ₂	656.19	F		50	118	2.36	1548
NiCl ₂ (PPh ₃) ₂	654.2	G	99	25	66	2.64	1727
NiCl ₂ •6H ₂ O	237.71	A	99	500	109	0.22	52
NiCl ₂ •6H ₂ O	237.71	D	99.3	2000	144	0.07	17
NiCl ₂ •6H ₂ O	237.71	D	98	5000	368	0.07	17
Nixantphos	551.55	A	98	1	145.5	145.50	80251
Nixantphos	551.55	A	97	1	146	145.50	80251
Nixantphos	551.55	AA	98	10	475	47.50	26199
Nixantphos	551.55	D	98	5	484	96.80	53390
Nixantphos	551.55	G	98	2	237	118.50	65359
Nixantphos	551.55	K	98	25	2025	81.00	44676
Nixantphos	551.55	P	98	5	373	74.60	41146
Nixantphos	551.55	U	98	5	459	91.80	50632
OsCl ₃	296.59	A	99.9	0.5	312	624.00	185072
OsCl ₃	296.59	G	99.95	5	750	150.00	44489
OsCl ₃ .3H ₂ O	350.6	D	99.99	5	685	137.00	48032
OsCl ₃ .3H ₂ O	350.6	Q	99.99	5	685	137.00	48032
OsO ₄	254.23	A	99.8	1	319	319.00	81099
OsO ₄	254.23	D	99.8	10	1238	123.80	31474
OsO ₄	254.23	G	99.95	5	458	91.60	23287
OsO ₄	254.23	H		10	750	75.00	19067
OsO ₄	254.23	Q	99.8	10	1263	126.30	32109
Oxalic acid-dihydrate	126.07	A		25000	246	0.01	1
Oxalic acid-dihydrate	126.07	H	99	10000	395	0.04	5
P (red)	30.97	A	97	1000	119	0.12	4
P (red)	30.97	D	98.9	2000	621	0.31	10
p-benzoquinone	108.1	H	99	500	54	0.11	12
p-toluenesulfonyl chloride	190.65	A	>98	3000	165	0.06	10
p-toluenesulfonyl chloride	190.65	D	98	5000	230	0.05	9
p-toluenesulfonyl chloride	190.65	H	99	10000	395	0.04	8
P(OEt) ₃	166.16	A	98	3876	150.5	0.04	6
P(OEt) ₃	166.16	D	98	479	35.3	0.07	12
P(OEt) ₃	166.16	G	97	1000	80	0.08	13
P(OEt) ₃	166.16	H	99	500	30	0.06	10
P(OMe) ₃	124.08	A	>97	1052	84.9	0.08	10
P(OMe) ₃	124.08	D	97	2500	550	0.22	27
P(OMe) ₃	124.08	G	97	1000	123	0.12	15

P(OMe) ₃	124.08	H	99	4208	265	0.06	8
P ₂ O ₅	141.94	A	99.9	6000	495	0.08	12
P ₂ O ₅	141.94	D	98	2500	76	0.03	4
paraformaldehyde	30.03	A	95	3000	238	0.08	2
paraformaldehyde	30.03	D	97	10000	212	0.02	1
paraformaldehyde	30.03	H	95	3000	60	0.02	1
Pb(NO ₃) ₂	331.21	A	99	2500	285	0.11	38
Pb(NO ₃) ₂	331.21	D	99	2500	162	0.06	21
Pb(NO ₃) ₂	331.21	G	99	1000	108	0.11	36
Pb(OAc) ₄	443.38	A	95	500	297	0.59	263
Pb(OAc) ₄	443.38	D	96	1000	297	0.30	132
Pb(OAc) ₄	443.38	G	95	250	228	0.91	404
PbCl ₂	278.11	A	98	1000	207	0.21	57
PbCl ₂	278.11	D	99	2000	181	0.09	25
PbCl ₂	278.11	E		25	210	8.40	2336
PbCl ₂	278.11	G	99	500	116	0.23	65
PBr ₃	270.7	A	97	500	143	0.29	77
PBr ₃	270.7	D	99	100	67	0.67	180
PBr ₃	270.7	GFS	99	4000	698	0.17	47
PBr ₃	270.7	H	99	2500	365	0.15	40
PbSO ₄	303.26	A	98	500	103	0.21	62
PbSO ₄	303.26	D		2500	511	0.20	62
PbSO ₄	303.26	G	99	1000	266	0.27	81
PCl ₃	137.33	A	99	1000	122	0.12	17
PCl ₃	137.33	D	98	250	61	0.24	33
PCl ₃	137.33	G	98	250	58	0.23	32
PCl ₃	137.33	H	98	500	95	0.19	26
PCl ₅	208.24	A	95	1000	88	0.09	18
PCl ₅	208.24	A	98	1000	111	0.11	23
PCl ₅	208.24	D	98	2000	125	0.06	13
PCl ₅	208.24	G	98	1000	132	0.13	27
PCl ₅	208.24	H	95	100	24	0.24	50
Pd(acac) ₂	304.62	A	99	5	296	59.20	18034
Pd(acac) ₂	304.62	D		5	291	58.20	17729
Pd(acac) ₂	304.62	E	>98	5	292	58.40	17790
Pd(acac) ₂	304.62	G	99	5	216	43.20	13160
Pd(acac) ₂	304.62	H	98	5	178	35.60	10844
Pd(OAc) ₂	224.51	A	98	100	2555	25.55	5736
Pd(OAc) ₂	224.51	D	98	25	862	34.48	7741

Pd(OAc) ₂	224.51	G	>99	25	834	33.36	7490
Pd(OAc) ₂	224.51	H	99	25	995	39.80	8935
Pd(OAc) ₂	224.51	Q		50	1919	38.38	8617
Pd(PPh ₃) ₂ Cl ₂	701.9	H	96	25	210	8.40	5896
Pd(PPh ₃) ₄	1155.56	A	99	25	461	18.42	21285
Pd(PPh ₃) ₄	1155.56	D	99.8	10	241	24.10	27849
Pd(PPh ₃) ₄	1155.56	G	99	25	420	16.80	19413
Pd(PPh ₃) ₄	1155.56	H	98	25	195	7.80	9013
Pd(PPh ₃) ₄	1155.56	Q	99	100	1288	12.88	14883
Pd ₂ dba ₃	915.72	A	97	500	7450	14.90	6822
Pd ₂ dba ₃	915.72	A	97	500	7450	14.90	13644
Pd ₂ dba ₃	915.72	D		5	202	40.40	36995
Pd ₂ dba ₃	915.72	F	97	25	715	28.60	26190
Pd ₂ dba ₃	915.72	G		25	730	29.20	26739
Pd ₂ dba ₃	915.72	H	97	25	400	16.00	14652
PdCl ₂	177.33	A	99	100	2520	25.20	4469
PdCl ₂	177.33	D	99.9	50	2047	40.94	7260
PdCl ₂	177.33	G	99.9	25	788	31.52	5589
PdCl ₂	177.33	H	98	5	190	38.00	6739
PdCl ₂	177.33	Q	59Pd	100	2771	27.71	4914
PdCl ₂ (PPh ₃) ₂	701.9	A	98	100	1430	14.30	10037
PdCl ₂ (PPh ₃) ₂	701.9	D	99.95	25	454	18.16	12747
PdCl ₂ (PPh ₃) ₂	701.9	G	99	25	382	15.28	10725
PdCl ₂ (PPh ₃) ₂	701.9	H	96	25	210	8.40	5896
Ph ₂ P(H)BH ₃	200.02	A		5	259	51.70	10341
Ph ₂ P(O)H	202.2	A	97	5	184	36.70	7421
Ph ₂ P(O)H	202.2	D	97	25	570	22.80	4610
Ph ₂ P(O)H	202.2	E	97	25	430	17.20	3478
Ph ₂ P(O)H	202.2	F	97	5	143	28.68	5798
Ph ₂ P(O)H	202.2	I	98	500	435	0.87	176
Ph ₂ P(O)H	202.2	L	97	25	463	18.53	3746
Ph ₂ P(O)H	202.2	R	97	1000	693	0.69	140
Ph ₂ P(O)H	202.2	V	98	1000	644	0.64	130
Ph ₂ PCI	220.63	A	96	500	306.5	0.61	135
Ph ₂ PCI	220.63	D	95	500	280	0.56	124
Ph ₂ PCI	220.63	G	98	500	295	0.59	130
Ph ₂ PCI	220.63	G	95	1000	504	0.50	111
Ph ₂ PCI	220.63	H	95	500	180	0.36	79
Ph ₃ P	262.29	A	99	10000	844	0.08	22
Ph ₃ P	262.29	D	99+	500	116	0.23	61

Ph ₃ P	262.29	F	99	5000	431.5	0.09	23
Ph ₃ P	262.29	G	99	2000	214	0.11	28
phenyl furan-2-carboxylate	188.18	U		5	307	61.40	11554
PhI(OAc) ₂	322.1	A	98	100	145	1.45	465
PhI(OAc) ₂	322.1	D	98	500	571	1.14	368
PhI(OAc) ₂	322.1	E	97	250	264	1.06	340
PhMgBr	181.31	A					111
PhMgBr	181.31	H					150
PhP(O)(OH)H	142.09	A	99	500	90.9	0.18	26
PhP(O)(OH)H	142.09	D	98	500	84.6	0.17	24
PhP(O)(OH)H	142.09	G	99	500	77	0.15	22
PhP(O)(OH)H	142.09	H	98	100	22	0.22	31
PhPCl ₂	178.99	A	97	500	140	0.28	50
PhPCl ₂	178.99	D	97	1000	156	0.16	28
PhPCl ₂	178.99	G	97	1000	147	0.15	26
PhPCl ₂	178.99	H	97	1000	179	0.18	32
picoline borane	109.96	A	95	5	58	11.66	1282
picoline borane	109.96	D	95	25	249	9.96	1095
picoline borane	109.96	E	>85	5	90	18.00	1979
pinacol	118.18	A	98	500	388.5	0.78	92
pinacol	118.18	D	99	500	379	0.76	90
pinacol	118.18	E	60	500	120	0.24	28
pinacol	118.18	H	99	500	100	0.20	24
pinacol-H-phosphonate	164.14	A	95	1	78.4	78.40	12869
pinacol-H-phosphonate	164.14	E	>95	5	248	49.60	8141
Pivaloyl chloride	120.58	A	99	489.5	61	0.12	15
Pivaloyl chloride	120.58	D	98+	2447.5	197	0.08	10
Pivaloyl chloride	120.58	F	99	1000	92	0.09	11
Pivaloyl chloride	120.58	H	98	18000	1250	0.07	8
POCl ₃	153.33	A	99	1000	96	0.10	15
POCl ₃	153.33	D	99	1000	93	0.09	14
POCl ₃	153.33	G	98	1000	158	0.16	24
POCl ₃	153.33	H	99	4000	250	0.06	10
potassium tert-butoxide	112.22	A	98+	25000	2831	0.11	13
potassium tert-butoxide	112.22	D	97	1000	173	0.17	19
potassium tert-butoxide	112.22	H	99	20000	1300	0.07	7
PPh ₃	262.29	A	99	10000	844	0.08	22
PPh ₃	262.29	D	99	1000	210	0.21	55
PPh ₃	262.29	E	95	500	82	0.16	43

PPh ₃	262.29	G	99	2000	214	0.11	28
PPh ₃	262.29	H	99	10000	350	0.04	9
PrCl ₃	247.27	A	99.99	5	168	33.60	8308
PrCl ₃	247.27	D	99.99	25	442	17.68	4372
PrCl ₃	247.27	G	99.9	25	138	5.52	1365
PtCl ₂	265.98	A	98	5	637	127.40	33886
PtCl ₂	265.98	D	98	5	586	117.20	31173
PtCl ₂	265.98	G	99.9	5	760	152.00	40429
PtCl ₂	265.98	H	95+	25	1295	51.80	13778
PtCl ₂	265.98	Q	99	25	2016	80.63	21446
PtCl ₄	336.89	A	96	5	517	103.40	34834
PtCl ₄	336.89	D	99.9	5	608	121.60	40966
PtCl ₄	336.89	G	99.9	5	480	96.00	32341
PtCl ₄	336.89	Q	99	5	444	88.84	29928
pyridine	79.1	H	60	200000	6495	0.03	3
pyridine	79.1	H	60	200000	6495	0.03	3
rac-BINAP	622.67	A	96	1	84	84.10	52367
rac-BINAP	622.67	G	98	100	599	5.99	3730
RbCl	120.92	A	≥99	10	71	7.13	862
RbCl	120.92	D	99	5	34	6.74	815
RbCl	120.92	G	99	10	58	5.80	701
ReCl ₃	292.57	A		5	1245	249.00	72850
ReCl ₃	292.57	D		1	407	407.00	119076
ReCl ₅	363.47	A		5	710	142.00	51613
ReCl ₅	363.47	D	99.9	10	1010	101.00	36710
ReCl ₅	363.47	G	99.9	5	462	92.40	33585
ReCl ₅	363.47	Q	99.9	10	1010	101.00	36710
Rh ₂ (Oac) ₄	441.99	A		25	3710	148.40	65591
Rh ₂ (Oac) ₄	441.99	D	98+	2	575	287.50	127072
Rh ₂ (Oac) ₄	441.99	E		1	285	285.00	125967
Rh ₂ (Oac) ₄	441.99	F		5	1154	230.73	101979
Rh ₂ (Oac) ₄	441.99	G	99	25	3450	138.00	60996
RhCl ₃	209.26	A	98	2.5	606	242.40	50725
RhCl ₃	209.26	D	99.9	5	2388	477.60	99943
RhCl ₃	209.26	G	98	5	1056	211.20	44196
RhCl ₃	209.26	Q	99.9	2.5	470	187.80	39299
RuCl ₃	207.43	A		50	1510	30.20	6264
RuCl ₃	207.43	D	99.9	10	323	32.30	6700
RuCl ₃	207.43	G		25	704	28.16	5841
RuCl ₃	207.43	Q	99.9	50	1080	21.60	4481

S	32.07	A	99.5	1000	134	0.13	4
S	32.07	D	99.5	2000	107	0.05	2
S	32.07	G	99	1000	69	0.07	2
SbCl ₃	228.12	A	99	100	101	1.01	229
SbCl ₃	228.12	D	99	2500	266	0.11	24
SbCl ₃	228.12	G	99	1000	261	0.26	60
SbCl ₅	299.03	A	99	1000	265	0.26	79
SbCl ₅	299.03	D	99	1000	285	0.29	85
SbCl ₅	299.03	G	99	500	157	0.31	94
ScCl ₃	151.31	A	99.90	1	234	234.00	35407
ScCl ₃	151.32	D	99.90	1	163	162.90	24650
ScCl ₃	151.32	G	99.99	1	132	132.00	19974
Se ₂ Cl ₂	228.83	D	99	50	507	10.14	2320
Se ₂ Cl ₂	228.83	G	99	50	355	7.10	1625
SeCl ₄	220.77	A		50	210	4.20	927
SeCl ₄	220.77	D	99.4	100	320	3.20	706
SeCl ₄	220.77	G	99.8	50	182	3.64	804
SeO ₂	110.96	A	99.8	500	247	0.49	55
SeO ₂	110.96	D	99.4	500	212	0.42	47
SeO ₂	110.96	G	99.8	500	341	0.68	76
SeOCl ₂	165.87	A	97	10	160	15.95	2646
SeOCl ₂	165.87	D	99	60.75	619	10.19	1690
SeOCl ₂	165.87	G	97	25	248	9.92	1645
Si(OBu) ₄	320.54	A	97	100	112	1.12	359
Si(OBu) ₄	320.54	D	97	100	100	1.00	321
Si(OBu) ₄	320.54	E	97	449.5	245	0.55	175
Si(OBu) ₄	320.54	G	97	50	69	1.38	442
Si(OBu) ₄	320.54	J	95-98	500	160	0.32	103
SiCl ₄	169.9	A	99	1000	93	0.09	16
SiCl ₄	169.9	D	99	4449	259	0.06	10
SiCl ₄	169.9	E	98	500	43	0.09	15
SiCl ₄	169.9	G	99.999	500	250	0.50	85
SiCl ₄	169.9	H	99	100	31	0.31	53
SmCl ₃	256.72	A	99.9	10	235	23.50	6033
SmCl ₃	256.72	D	99.9	50	349	6.98	1792
SmCl ₃	256.72	G	99.9	100	532	5.32	1366
SnCl ₂	182.69	A	98	2000	447	0.22	41
SnCl ₂	182.69	D	98	2500	446	0.18	33
SnCl ₂	182.69	G	98	500	103	0.21	38

SnCl ₄	260.52	A	98	2000	341	0.17	44
SnCl ₄	260.52	D	98	2000	160	0.08	21
SnCl ₄	260.52	G	98	1000	138	0.14	36
SnCl ₄	260.52	H	99	5000	189	0.04	10
SnSO ₄	214.77	A	95	500	109	0.22	47
SnSO ₄	214.77	D	95.5	1000	158	0.16	34
SnSO ₄	214.77	G	95	500	56	0.11	24
sodium acetate	82.03	A	>99	25000	420	0.02	1
sodium acetate	82.03	H	>99	10000	130	0.01	1
sodium formate	68.01	A	>99	1000	91	0.09	6
sodium formate	68.01	H	98	20000	296	0.01	1
Sodium tert-butoxide	96.1	A	97	1500	461	0.31	30
Sodium tert-butoxide	96.11	D	97	2500	594	0.24	23
Sodium tert-butoxide	96.11	E		500	139	0.28	27
Sodium tert-butoxide	96.11	F	98	2500	449	0.18	17
Sodium tert-butoxide	96.11	G	98	500	184	0.37	35
Sodium tert-butoxide	96.11	H	97	10000	755	0.08	7
SrCl ₂	158.53	A	≥99.99	5	94	18.80	2980
SrCl ₂	158.53	D	99.50	25	83	3.32	526
SrCl ₂	158.53	F	99.99	5	85	16.92	2682
TaCl ₅	358.21	A	99.8	100	493	4.93	1766
TaCl ₅	358.21	D	99.8	100	303	3.03	1085
TaCl ₅	358.21	G	99.9	50	143	2.86	1024
TaCl ₅	358.21	Q	99.9	10	61	6.10	2185
TbCl ₃	265.28	A	99.9	10	374	37.40	9921
TbCl ₃	265.28	D	99.9	5	243	48.60	12893
TbCl ₃	265.28	G	99.9	10	304	30.40	8065
TBSOTf	264.34	A	98	25	254	10.16	2686
TBSOTf	264.34	H	99	1000	410	0.41	108
TBSOTf	264.34	J	99	50	232	4.64	1227
TBSOTf	264.34	M	99	5000	1434	0.29	76
tBuDavePhos	341.47	A	97	5	315.5	63.10	21547
tBuDavePhos	341.47	G	98	10	570	57.00	19464
tBuOOTBu	146.23	A	98	796	145	0.18	27
TeCl ₄	269.41	A	99	100	542	5.42	1460
TeCl ₄	269.41	D	99.9	100	258	2.58	695
TeCl ₄	269.41	G	99.9	50	125	2.50	674
tert-amyl alcohol	88.15	F	99	8100	332.36	0.04	4
tetrahydrofuran	72.11	A		177800	3239		1
tetrahydrofuran	72.11	H	99	177800	1495	0.01	1

Tf ₂ O	282.14	A	99+	4000	3555	0.89	251
Tf ₂ O	282.14	D	98	250	471	1.88	532
Tf ₂ O	282.14	H	99.5	4000	1395	0.35	98
Tf ₂ O	282.14	W	99	1000	270	0.27	76
TfCl	168.52	A	99+	25	199	7.96	1341
TfCl	168.52	D	99	100	725	7.25	1222
TfCl	168.52	M	99	1000	3889	3.89	655
TfOH	150.08	A	98	100	151	1.51	226
TfOH	150.08	D	98+	250	301	1.20	181
TfOH	150.08	H	99.5	2500	395	0.16	24
TiCl ₄	189.68	A	99.90	200	64	0.32	61
TiCl ₄	189.71	D	99.99	100	172	1.72	326
TiCl ₄	189.73	G	99	250	43	0.17	33
TiCl ₄	189.71	H	99	100	44	0.44	83
Ti(CF ₃ COO) ₃	543.43	A		50	267	5.33	2896
Ti(CF ₃ COO) ₃	543.43	D		50	286	5.72	3108
Ti(CF ₃ COO) ₃	543.43	E	95	10	101	10.10	5489
Ti(CF ₃ COO) ₃	543.43	G		25	370	14.80	8043
Ti(NO ₃) ₃ · 3H ₂ O	444.44	A		100	242	2.42	1076
Ti(NO ₃) ₃ · 3H ₂ O	444.44	D	99.5	100	795	7.95	3533
Ti ₂ SO ₄	504.83	A	99.9	250	559	2.24	1129
Ti ₂ SO ₄	504.83	D	99.5	250	978	3.91	1975
Ti ₂ SO ₄	504.83	G	99.5	100	290	2.90	1464
TiCl	239.84	A	99	25	101	4.02	964
TiCl	239.84	D	99.999	100	562	5.62	1348
TiCl	239.84	H	95	5	40	8.00	1919
TmCl ₃	275.29	A	99.9	5	475	95.00	26153
TmCl ₃	275.29	F	99.9	1	94	94.00	25877
TmCl ₃	275.29	G	99.9	5	312	62.40	17178
TMSBr	153.1	A	97	100	141	1.41	216
TMSBr	153.1	H	95	1000	295	0.30	45
TMSBr	153.1	J	98	2500	700	0.28	43
toluene	92.14	A	>85	173000	3175	0.02	2
toluene	92.14	A		173000	2441		1
toluene	92.14	D	85	3468	77.6	0.02	2
toluene	92.14	F		21625	421		2
toluene	92.14	H	99.5	173000	700	0.00	0
Tosyl chloride	190.65	A	>98	3000	165	0.06	10
Tosyl chloride	190.65	D	98	5000	230	0.05	9
Tosyl chloride	190.64	E		500	36	0.07	14

Tosyl chloride	190.64	F	99+	10000	397	0.04	8
Tosyl chloride	190.65	H	99	10000	395	0.04	8
triethyl orthoformate	148.2	A	98	1782	313	0.18	26
triethyl orthoformate	148.2	D	98	8910	373	0.04	6
triethyl orthoformate	148.2	H	99	3564	95	0.03	4
triethylamine	101.19	A	99	726	100	0.14	14
triethylamine	101.19	D	99	1815	92	0.05	5
triethylamine	101.19	H	99.5	150000	1800	0.01	1
trifluoroacetic acid	114.02	A	99	2978	713	0.24	27
trifluoroacetic acid	114.02	D	99	2500	480	0.19	22
trifluoroacetic acid	114.02	G	99	500	170	0.34	39
trifluoroacetic acid	114.02	H	99	20000	560	0.03	3
Tris(triphenylphosphine) rhodium(I) chloride	925.23	A	98	5	426.5	85.30	78922
Tris(triphenylphosphine) rhodium(I) chloride	925.23	D	97	5	576	115.20	106586
Tris(triphenylphosphine) rhodium(I) chloride	925.23	E	>98	5	264	52.80	48852
Tris(triphenylphosphine) rhodium(I) chloride)	925.23	G	99	5	406	81.20	75129
urea	60.06	A		5000	154	0.03	2
urea	60.06	E	99	25000	185	0.00	0
V ₂ O ₃	149.88	A	98	100	284	2.84	426
V ₂ O ₃	149.88	D	95	5000	638	0.13	19
V ₂ O ₃	149.88	G	95	250	99	0.40	59
V ₂ O ₃	149.88	G	98	100	284	2.84	426
V ₂ O ₃	149.88	Q	95	5000	644	0.13	19
V ₂ O ₄	165.88	A	>99	20	207	10.33	1713
V ₂ O ₄	165.88	D	99	50	248	4.96	823
V ₂ O ₄	165.88	G	>99	50	241	4.82	800
V ₂ O ₅	181.88	A	>98	500	146	0.29	53
V ₂ O ₅	181.88	D	99.2	1000	144	0.14	26
V ₂ O ₅	181.88	G	98	500	77	0.15	28
V ₂ O ₅	181.88	Q	98	2500	316	0.13	23
VCl ₂	121.85	A	85	5	270	53.90	6568
VCl ₃	157.3	A	97	100	276	2.76	433
VCl ₃	157.3	D	99	50	341	6.82	1073
VCl ₃	157.3	G	95	50	172	3.44	541
VCl ₃	157.3	Q	97	100	156	1.56	246
WCl ₄	325.65	A	95	25	388	15.50	5048
WCl ₄	325.65	G	97	25	345	13.80	4494
WCl ₄	325.65	Q	97	5	124	24.70	8044

WCl ₆	396.56	A	>99.9	100	240	2.40	950
WCl ₆	396.56	D	99	250	626	2.50	993
WCl ₆	396.56	G	>99.9	100	188	1.88	746
WCl ₆	396.56	Q	99	250	386	1.54	612
Wilkinson's catalyst	925.23	A	98	5	427	85.30	78922
Wilkinson's catalyst	925.23	D	98	5	576	115.20	106586
Wilkinson's catalyst	925.23	E	98	5	264	52.80	48852
Wilkinson's catalyst	925.23	F	98	5	354	70.80	65506
Wilkinson's catalyst	925.23	G	98	5	406	81.20	75129
Xantphos	578.62	A	97	25	718	28.72	16618
Xantphos	578.62	D	97	5	228	45.60	26385
Xantphos	578.62	G	98	100	1764	17.64	10207
Xantphos	578.62	H	97	500	850	1.70	984
YbCl ₃	279.4	A	99.9	5	196	39.20	10952
YbCl ₃	279.4	D	99.99	25	406	16.24	4537
YbCl ₃	279.4	G	99.9	25	342	13.68	3822
YCl ₃	195.26	A	99.99	50	260	5.19	1013
YCl ₃	195.26	D	99.99	50	228	4.56	890
YCl ₃	195.26	G	99.90	50	180	3.60	703
Zinc dust	65.39	A		1000	90	0.09	6
Zinc dust	65.39	D	99.9	5000	224	0.04	3
Zinc dust	65.39	H	98	2500	159	0.06	4
ZnCl ₂	136.3	A	>98	5000	470	0.09	13
ZnCl ₂	136.3	D	97	5000	458	0.09	12
ZnCl ₂	136.3	E	98	300	31	0.10	14
ZnCl ₂	136.3	G	97	500	79	0.16	22
ZnCl ₂	136.3	H	98	4000	159	0.04	5
ZnO	81.39	A	99	1000	107	0.11	9
ZnO	82.39	D	98	5000	188	0.04	3
ZnO	83.39	G	99.7	2000	88	0.04	4
ZrCl ₄	233.04	A	≥99.5	100	69	0.69	160
ZrCl ₄	233.03	D	≥99.5	100	37	0.37	86
ZrCl ₄	233.03	G	99.50	50	22	0.44	103