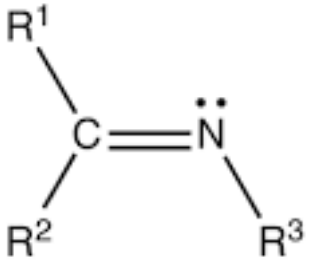

Imines

Table 1: ^{14}N χ_{zz} (MHz) in Imines. (References are given below.)

Methanimine	CH_2=NH	-4.4576(57)
Difluoromethanimine	CF_2=NH	-3.184(139)
Perfluoromethanimine	CF_2=NF	-4.738(104)
d-N-methylmethanimine	CD_2=NCD_3	-4.91(19)
trans-Ethanimine	t-(CH_3)C(H)=NH	-4.273(11)
cis-Ethanimine	c-(CH_3)C(H)=NH	-4.099(14)
trans-syn-Propenimine	t-s-(CH_2)=C(H)C(H)=NH	-4.311(13)
trans-anti-Propenimine	t-a-(CH_2)=C(H)C(H)=NH	-4.134(17)
Ketenimine	CH_2=C=NH	-2.866(182)
Hexafluoroacetone imine	$(CF_3)_2$C=NH	-4.672(16)

Table 2: ^{14}N NQCC tensors (MHz).

	CH_2=NH	CF_2=NH	CF_2=NF	CD_2=NCD_3
χ_{aa}	-0.9148(12)	0.968(5)	4.645(5)	1.28(37)
χ_{bb}	-2.6665(6)	-2.482(5)	-3.178(14)	-4.87(19)
χ_{cc}	3.5813(6)	1.514(3)	-1.467(14)	3.59(18)
$\lvert\chi_{ab}\rvert$	2.519(6)[a]	1.707(198)[b]	3.826(148)[c]	0.509(98)[d]
χ_{xx}	0.8763(57)	1.670(139)	6.205(104)	1.32(37)
χ_{yy}	3.5813(6)	1.514(3)	-1.467(14)	3.59(18)
χ_{zz}	-4.4576(57)	-3.184(139)	-4.738(104)	-4.91(19)
η	0.6068(15)	-0.049(44)	-1.619(42)	0.46(8)

[a] *Ab initio* value. The estimated uncertainty is 2× the root mean square difference between calculated and experimental diagonal components. See http://nqcc.wcbailey.net/CH2NH.html

[b] *Ab initio* value. The estimated uncertainty is 2× the root mean square difference between calculated and experimental diagonal components. See http://nqcc.wcbailey.net/CF2NH.html

[c] *Ab initio* value. The estimated uncertainty is 2× the root mean square difference between calculated and experimental diagonal components. See http://nqcc.wcbailey.net/CF2NF.html

[d] *Ab initio* value. The estimated uncertainty is 2× the root mean square difference between calculated and experimental diagonal components. See http://nqcc.wcbailey.net/CH3NCH2.html

Table 3: ^{14}N NQCC tensors (MHz).

	t-Ethanimine	c-Ethanimine	Propenimine trans-syn	Propenimine trans-anti
χ_{aa}	-3.6066(13)	0.9980(22)	-2.9938(22)	0.7414(11)
χ_{bb}	0.5488(33)	-4.0524(22)	-0.1636(54)	-3.8461(11)
χ_{cc}	3.0578(33)	3.0544(31)	3.1574(54)	3.1047(16)
$\lvert\chi_{ab}\rvert$	1.792(16)[a]	0.489(72)[b]	2.337(16)[c]	1.185(38)[d]
χ_{xx}	1.215(11)	1.045(14)	1.153(14)	1.029(17)
χ_{yy}	3.0578(33)	3.0544(31)	3.1574(54)	3.1047(16)
χ_{zz}	-4.273(11)	-4.099(14)	-4.311(14)	-4.134(17)
η	0.4313(29)	0.4902(38)	0.4649(38)	0.5020(48)

[a] *Ab initio* value. The estimated uncertainty is 2× the root mean square difference between calculated and experimental diagonal components. See http://nqcc.wcbailey.net/tEthanimine.html

[b] *Ab initio* value. The estimated uncertainty is 2× the root mean square difference between calculated and experimental diagonal components. See http://nqcc.wcbailey.net/cEthanimine.html

[c] *Ab initio* value. The estimated uncertainty is 2× the root mean square difference between calculated and experimental diagonal components. See http://nqcc.wcbailey.net/TSPropenimine.html

[d] *Ab initio* value. The estimated uncertainty is 2× the root mean square difference between calculated and experimental diagonal components. See http://nqcc.wcbailey.net/TAPropenimine.html

Table 4: ^{14}N NQCC tensors (MHz).

	Ketenimine	Hexafluoroacetone imine
χ_{aa}	0.030(46)	-3.050(17)
χ_{bb}	1.523(40)	-1.008(22)
χ_{cc}	-1.553(61)	4.058(14)
χ_{ab}	———	2.431(10)[b]
χ_{ac}	1.950(190)[a]	-0.238(10)[b]
χ_{bc}	———	0.074(10)[b]
χ_{xx}	1.343(180)	0.606(18)
χ_{yy}	1.523(40)	4.066(14)
χ_{zz}	-2.866(182)	-4.672(16)
η	0.063(64)	0.7405(56)

[a] *Ab initio* value. The estimated uncertainty is 2× the root mean square difference between calculated and experimental diagonal components. See http://nqcc.wcbailey.net/H2CCNH.html

[b] *Ab initio* value. The estimated uncertainty is 2× the root mean square difference between calculated and experimental diagonal components. See http://nqcc.wcbailey.net/CF32CNH.html

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