

NewPet for Windows

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What is NewPet?

NewPet is a fairly user friendly geochemical data handling system. It has it's DOS origins in 'Igpert' by M.J.Carr many moons ago.

Bibliography

General

Discrimination Plots

Melt Modelling

NewPrim

Normative Refs

Normalization Factors

The first two sets of norm values are from George Jenner. If you want to know where he came up with them please feel free to ask him. I do, but he just keeps forgetting to tell me. He can be reached via the address at the beginning of the manual. His email address is gjenner@sparky2.esd.mun.ca. Please let me know if you get a response.

All values are ppm.

Normalized Plots

	Primitive Mantle	MORB
Cs	.007	.013
Rb	.555	1.12
Ba	6.27	14.3
Th	.088	.185
U	.022	.075
K	267	955
Nb	.65	3.58
La	.63	3.96
Ce	1.59	11.97
Sr	18.9	122
Nd	1.21	10.96
Hf	.28	2.87
Zr	9.8	90
Sm	.399	3.62
Eu	.15	1.31
Ti	1134	9000
Gd	.533	4.78
Dy	.661	5.98
Y	3.9	34.2
Er	.432	3.99
Yb	.442	3.73
Lu	.066	.56

Rare Earth Elemental Plots

	Primitive Mantle	SUN
La	.63	.329
Ce	1.59	.865
Pr	.251	.13
Nd	1.21	.63
Sm	.399	.203
Eu	.15	.077
Gd	.533	.276
Tb	.0974	.0498
Dy	.661	.343
Ho	.148	.077
Er	.432	.225
Tm	.0676	.0352

Yb	.442	.22
Lu	.066	.0339

Extended Elemental Plots

Both of these sets of norm values are from Taylor and McLennan 1985.

	Taylor Chondrite	Primitive Mantle
Li	2.4	.83
K	854	180
Rb	3.45	.55
Cs	.279	.018
Tl	.215	.006
Pb	3.65	.120
Ba	3.41	5.1
Th	.0425	.064
U	.0122	.018
Nb	.375	.56
La	.367	.551
Ce	.957	1.436
Sr	11.9	17.8
Pr	.137	.206
Nd	.711	1.607
Zr	5.54	8.3
Sm	.231	.347
Eu	.087	.131
Gd	.306	.459
Tb	.058	.087
Ti	654	960
Dy	.381	.572
Y	2.25	3.4
Ho	.0851	.128
Er	.249	.374
Tm	.0356	.054
Yb	.248	.372
Lu	.0381	.057
Sc	8.64	13
V	85	128
Zn	462	50
Cu	168	28
Ni	16500	2000
Cr	3975	3000

NewPrim

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Appendix

Bibliography

Discrimination Plot Abbreviations

Normalization Factors

Recalculations

Conversion Factors

Elemental to Oxide Concentraions

Element		Oxide	
Ag	-->	Ag ₂ O	1.0741
Al	-->	Al ₂ O ₃	1.88988
As	-->	As ₂ O ₃	1.3203
As	-->	As ₂ O ₅	1.5339
Au	-->	Au ₂ O	1.0406
B	-->	B ₂ O ₃	3.2202
Ba	-->	BaO	1.1165
Be	-->	BeO	2.7758
Bi	-->	Bi ₂ O ₅	1.1914
C	-->	CO ₂	3.6644
Ca	-->	CaO	1.3992
Ca	-->	CaCO ₃	2.2973
Ce	-->	CeO ₂	1.2284
Ce	-->	Ce ₂ O ₃	1.1713
Co	-->	CoO	1.2715
Cr	-->	Cr ₂ O ₃	1.4615
Cs	-->	Cs ₂ O	1.0602
Cu	-->	CuO	1.2518
Dy	-->	Dy ₂ O ₃	1.1477
Er	-->	Er ₂ O ₃	1.1579
Eu	-->	Eu ₂ O ₃	1.1579
Fe ²⁺	-->	FeO	1.2865
Fe ³⁺	-->	Fe ₂ O ₃	1.4297
Fe	-->	FeS	1.5741
Ga	-->	Ga ₂ O ₃	1.3442
Gd	-->	Gd ₂ O ₃	1.1526
Ge	-->	GeO ₂	1.4408
Hf	-->	HfO ₂	1.1793
Hg	-->	HgO	1.0798
Ho	-->	Ho ₂ O ₃	1.1455
In	-->	In ₂ O ₃	1.2091
Ir	-->	IrO	1.0832
K	-->	K ₂ O	1.2046
K	-->	KCl	2.1029
La	-->	La ₂ O ₃	1.1728
Li	-->	Li ₂ O	2.1527
Lu	-->	Lu ₂ O ₃	1.1371
Mg	-->	MgO	1.6579
Mn	-->	MnO	1.2912
Mn	-->	MnO ₂	1.5825
Mo	-->	MoO ₃	1.5003
N	-->	N ₂ O ₅	3.8551
Na	-->	Na ₂ O	1.3480
Nb	-->	Nb ₂ O ₅	1.4305
Nd	-->	Nd ₂ O ₃	1.1664
Ni	-->	NiO	1.2725
Os	-->	OsO	1.0841
P	-->	P ₂ O ₅	2.2916
Pb	-->	PbO	1.0772
Pb	-->	PbO ₂	1.1544
Pd	-->	PdO	1.1504

Pr	-->	Pr2O3	1.1703
Pr	-->	Pr6O11	1.2082
Pt	-->	PtO	1.0820
Rb	-->	Rb2O	1.0936
Re	-->	ReO	1.0859
Rh	-->	RhO	1.5555
Ru	-->	RuO	1.1583
S	-->	SO3	2.4972
Sb	-->	Sb2O5	1.3284
Sc	-->	Sc2O3	1.5338
Se	-->	SeO3	1.6079
Si	-->	SiO2	2.1392
Sm	-->	Sm2O3	1.1596
Sn	-->	SnO2	1.2696
Sr	-->	SrO	1.1826
Ta	-->	Ta2O5	1.2211
Tb	-->	Tb2O3	1.1510
Tb	-->	Tb4O7	1.1762
Te	-->	TeO3	1.3762
Th	-->	ThO2	1.1379
Ti	-->	TiO2	1.6681
Tl	-->	Tl2O3	1.1174
Tm	-->	Tm2O3	1.1421
U	-->	UO2	1.1344
U	-->	UO3	1.2017
U	-->	U3O8	1.1792
V	-->	V2O5	1.7852
W	-->	WO3	1.2610
Y	-->	Y2O3	1.2699
Yb	-->	Yb2O3	1.1387
Zn	-->	ZnO	1.2448
Zr	-->	ZrO2	1.3508

You have to multiply by the following to convert from ppm to wt%:

ppm	-->	wt%*100	0.0001
ppm	-->	wt%	0.000001

Conversion Factors

Elemental to Oxide Concentraions
Oxide to Elemental Concentrations

Recalculations

These recalculations do not affect the data in the data file. They are only done on the data in memory.

Data recalculation is done in the following order:

1) Iron is recalculated. Depending on the option selected.

$$\text{FeO}^* = \text{FeO} + \text{Fe}_2\text{O}_3 * 0.89981 \quad (\text{total iron as FeO})$$

$$\text{Fe}_2\text{O}_3^* = \text{Fe}_2\text{O}_3 + \text{FeO} * 1.11135 \quad (\text{total iron as Fe}_2\text{O}_3)$$

$$\text{FeO Calc} = \text{FeO} / (\text{FeO} + \text{Fe}_2\text{O}_3)$$

2) If the anhydrous recalculation flag is set to "Y", the samples are recalculated anhydrously. The program checks to see if the total of the majors is between 99.98% and 100.02%. (SiO₂ to P₂O₅) If the total lies in this range, the sample is considered to be anhydrous and will not be recalculated.

$$\text{Anhydrous Recalc Factor} = 100 / (\text{majors} - (\text{LOI} + \text{H}_2\text{O} + \text{CO}_2))$$

All elements except the Radiogenics are then multiplied by this factor.

3) The Mg number is then calculated.

$$\text{Mg\#} = 100 * (\text{MgO} / \text{MgOMW}) / ((\text{FeO}^* / \text{FeOMW}) + (\text{MgO} / \text{MgOMW}))$$

4) The Solidification Index is calculated next.

$$\text{SI} = 100 * (\text{MgO} / (\text{Fe}_2\text{O}_3 + \text{FeO} + \text{MgO} + \text{Na}_2\text{O} + \text{K}_2\text{O}))$$

Oxide to Elemental Concentrations

Oxide Element

Al ₂ O ₃	-->	Al	0.52913
BaO	-->	Ba	0.89567
CaO	-->	Ca	0.71469
CaCO ₃	-->	Ca	0.40044
CeO ₂	-->	Ce	0.81409
CoO	-->	Co	0.78650
Cr ₂ O ₃	-->	Cr	0.68425
Cs ₂ O	-->	Cs	0.94323
CuO	-->	Cu	0.79885
FeO	-->	Fe+2	0.77731
Fe ₂ O ₃	-->	Fe+3	0.69943
FeO	-->	Fe ₂ O ₃	1.11135
Fe ₂ O ₃	-->	FeO	0.89981
FeS	-->	Fe	0.63327
Ga ₂ O ₃	-->	Ga	0.74393
K ₂ O	-->	K	0.83013
Li ₂ O	-->	Li	0.46452
MnO	-->	Mn	0.77443
MgO	-->	Mg	0.60317
Na ₂ O	-->	Na	0.74191
NiO	-->	Ni	0.78578
P ₂ O ₅	-->	P	0.43646
Rb ₂ O	-->	Rb	0.91442
SiO ₂	-->	Si	0.46720
SrO	-->	Sr	0.84560
TiO ₂	-->	Ti	0.59950
ZrO ₂	-->	Zr	0.74030

You also have to multiply by the following to convert from wt% to ppm:

wt% --> ppm 1 000 000

wt%*100 --> ppm 10 000

Discrimination Plots

R.A.Batchelor and P.Bowden, 1985
F.Debon and P.Le Fort, 1983
J.B.Gill, 1981
T.N.Irvine and W.R.A.Barager, 1971
L.S.Jensen, 1976
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P.D.Maniar and P.M.Piccoli, 1989
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A.Miyashiro, 1974
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F. Debon and P. Le Fort, 1983

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Figure 1

Figure 2a

Figure 2b

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Chemical Geology, vol.**48**, pp.**43-55**.

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figure 5.16a

figure 5.16b

figure 5.16c

figure 12

T.N.Irvine and W.R.A.Barager, 1971

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Figure 2

Figure 3

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Figure 1

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Figure 1

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Figure 1

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Journal of Geology, vol.39, pp.54-67.

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Figure ?

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J.A.Pearce and J.R.Cann, 1973

Tectonic setting of basic volcanic rocks determined using trace element analyses,
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Figure 2

Figure 3

Figure 4

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Petrogenetic Implications of Ti, Zr, Y, and Nb Variations in Volcanic Rocks,
Contributions to Mineralogy and Petrology, vol. **69**, pp. **33-47**.

Figure 3

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Trace element discrimination diagrams for the tectonic interpretation of granitic rocks,
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Figure 3

Figure 4

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Earth and Planetary Science Letters, vol.**59**, pp.**101-118**.

Figure 2

J.B.Whalen, K.L.Currie and B.W.Chappell, 1987

A-type granites: geochemical characteristics, discrimination and petrogenesis,
Contributions to Mineralogy and Petrology, vol.95, pp.407-419.

Figure 5a

Figure 5b

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Geochemical discrimination of different magma series and their differentiation products using immobile elements,

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Figure 2

Figure 6

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Figure 1a

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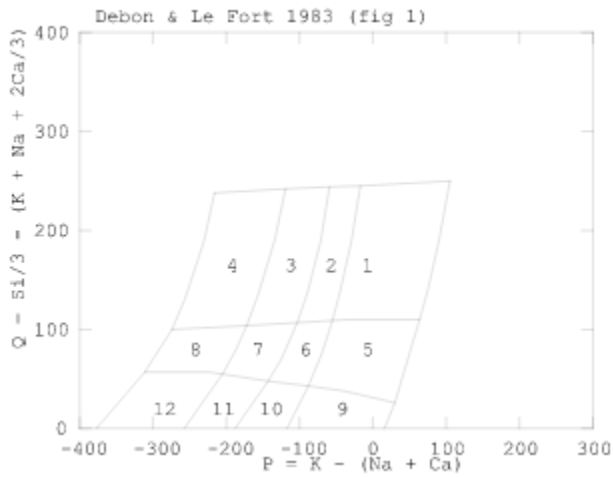
Discrimination Plot Abbreviations

Debon and Le Fort 1983: figure 1
Debon and Le Fort 1983: figure 2a
Debon and Le Fort 1983: figure 2b
Gill 1981: figure 5.16a
Gill 1981: figure 5.16b
Gill 1981: Figure 5.16c
Gill 1981: figure 12
Irvine and Baranger 1971: figure 2
Irvine and Baranger 1971: figure 3
Jensen 1976: figure 1
LeMaitre 1989: figure B.12
LeMaitre 1989: figure B.14
LeMaitre 1989: figure B.15
Meschede 1986: figure 1
Middlemost 1985: figure 3.3.3
Middlemost 1985: figure 3.3.6
Mullen 1983: figure 1
Pearce 1975: figure ?
Pearce and Cann 1973: figure 2
Pearce and Cann 1973: figure 3
Pearce and Cann 1973: figure 4
Pearce and Norry 1979: figure 3
Pearce et al 1984: figure 3
Pearce et al 1984: figure 4
Shervais 1982: figure 2
Whalen et al 1987: figure 5a
Whalen et al 1987: figure 5b
Winchester and Floyd 1977: figure 2
Winchester and Floyd 1977: figure 6
Wood 1980: figure 1a

Debon and Le Fort 1983: figure 1

	Plutonic	Volcanic
1	Granite	Rhyolite
2	Adamellite	Dellenite
3	Granodiorite	Rhyodacite
4	Tonalite (trochjemitite)	Dacite
5	Quartz Syenite	Quartz Trachyte
6	Quartz Monzonite	Quartz Latite
7	Quartz Monzodiorite	Quartz Latiandesite
8	Quartz Diorite	Quartz Andesite
9	Syenite	Trachyte
10	Monzonite	Latite
11	Monzogabbro	Latibasalt
12	Gabbro	Basalt

Ref: Debon and Le Fort 1983



Debon and Le Fort 1983: figure 2a

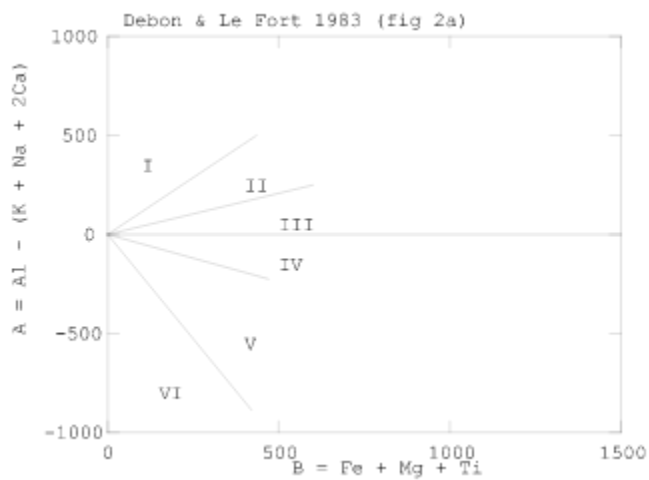
Peraluminous

- I muscovite or muscovite > biotite
- II biotite > muscovite
- III biotite

Metaluminous

- IV mainly hornblende and biotite
(biotite, hornblende, orthopyroxene,
clinopyroxene, primary epidote, sphene)
- V high prop cpx +/- primary epidote +/- sphene
- VI exceptional igneous rocks
- LG Leuco Granitoids

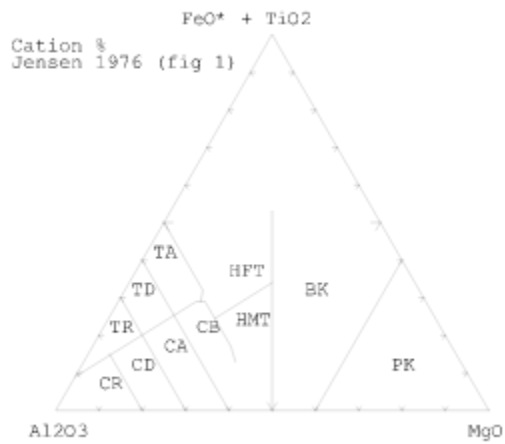
Ref: Debon and Le Fort 1983



Jensen 1976: figure 1

TR Tholeiitic Rhyolite
TD Tholeiitic Dacite
TA Tholeiitic Andesite
CR Calc-alkaline Rhyolite
CD Calc-alkaline Dacite
CA Calc-alkaline Andesite
CB Calc-alkaline Basalt
HFT High-Fe Tholeiite
HMT High-Mg Tholeiite
BK Basaltic Komatiite
PK Peridotitic Komatiite

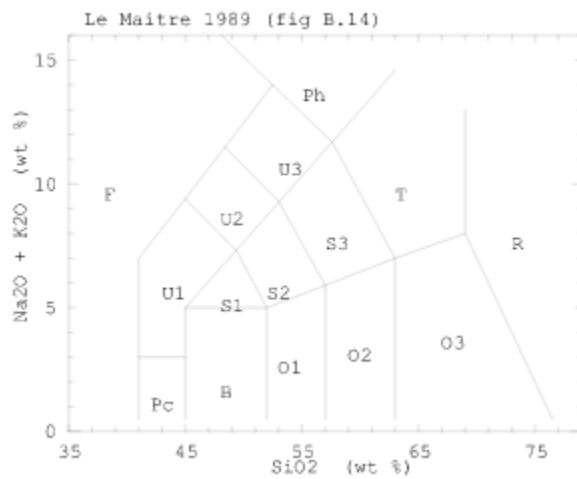
Ref: [Jensen 1976](#)



LeMaitre 1989: figure B.14

F	foidite
Pc	microbasalt
B	basalt
O1	basaltic andesite
O2	andesite
O3	dacite
S1	trachybasalt
S2	basaltic trachyandesite
S3	trachyandesite
T	trachyte (q < 20%) trachydacite (q > 20%)
R	rhyolite
U1	tephrite (ol < 10%) basanite (ol > 10%)
U2	phonotephrite
U3	tephriphonolite
Ph	phonolite

Ref: LeMaitre 1989



General

K.G.Cox, J.D.Bell and R.J.Pankhurst, 1979

C.J.Hughes, 1982

R.W.Le Maitre (ed.), 1989

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Figure B.12

Figure B.14

Figure B.15

E.A.K.Middlemost, 1985

"Magmas and Magmatic Rocks,"
Longman Group Limited, Essex.

Figure 3.3.3

Figure 3.3.6

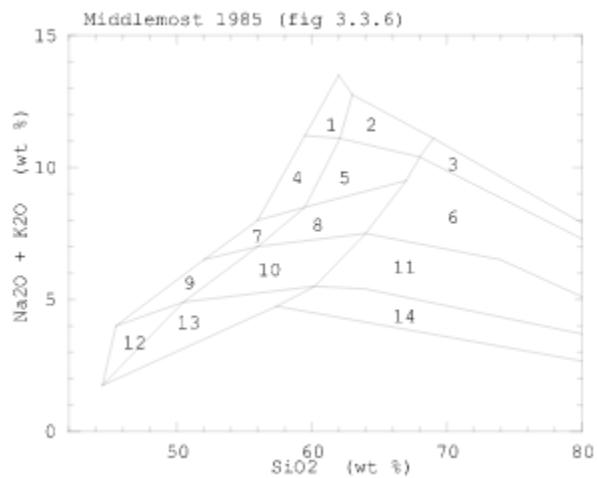
A. Streckeisen, 1976

To each plutonic rock its proper name,
Earth-Science Reviews, vol. **12**, pp. **1-33**.

Middlemost 1985: figure 3.3.6

- 1 Alkali feldspar Syenite
- 2 Alkali feldspar Quartz Syenite
- 3 Alkali feldspar Granite
- 4 Syenite
- 5 Quartz Syenite
- 6 Granite
- 7 Monzonite
- 8 Quartz Monzonite
- 9 Monzodiorite
- 10 Quartz Monzodiorite
- 11 Granodiorite
- 12 Diorite and Gabbro
- 13 Quartz Diorite
- 14 Tonalite

Ref: Middlemost 1985



Meschede 1986: figure 1

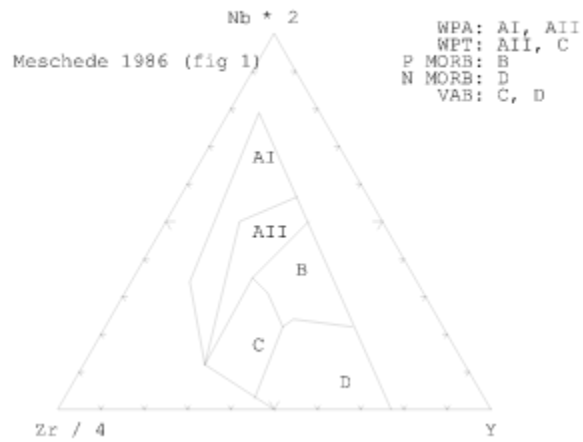
P MORB, N MORB Mid-Ocean Ridge Basalts

VAB Volcanic Arc Basalts

WPA Within Plate Alkaline Basalts

WPT Within Plate Tholeiites

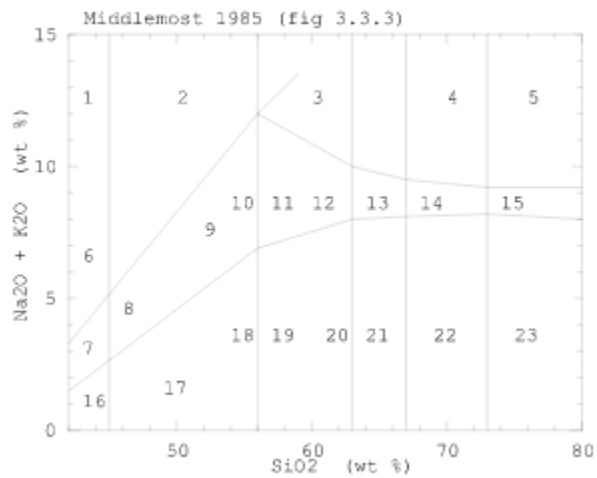
Ref: Meschede 1986



Middlemost 1985: figure 3.3.3

- 1 Nephelinite
- 2 Phonolite
- 3 Alkali trachyte
- 4 Pantellerite
- 5 Comendite
- 6 Basanite
- 7 Alkali picrite
- 8 Alkali olivine basalt
- 9 Trachybasalt
- 10 Trachyandesite basalt
- 11 Trachyandesite
- 12 Trachyte
- 13 Trachydacite
- 14 Trachyrhyolite
- 15 Alkali rhyolite
- 16 Picrite
- 17 Tholeiite basalt
- 18 Andesite basalt
- 19 Andesite
- 20 Andesite dacite
- 21 Dacite
- 22 Rhyolite dacite
- 23 Rhyolite

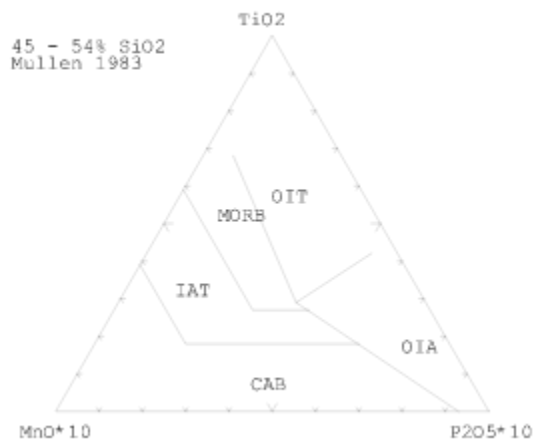
Ref: Middlemost 1985



Mullen 1983: figure 1

CAB Calc-Alkaline Basalts
IAT Island Arc Tholeiites
MORB Mid-Ocean Ridge and Marginal Basin Basalts
OIA Ocean Island Alkalic Basalts
OIT Ocean Island Tholeiites

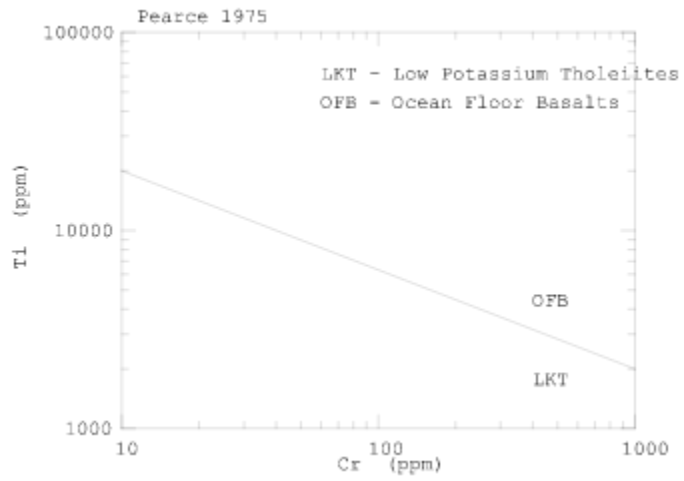
Ref: Mullen 1983



Pearce 1975: figure ?

LKT Low Potassium Tholeiites
OFB Ocean Floor Basalts

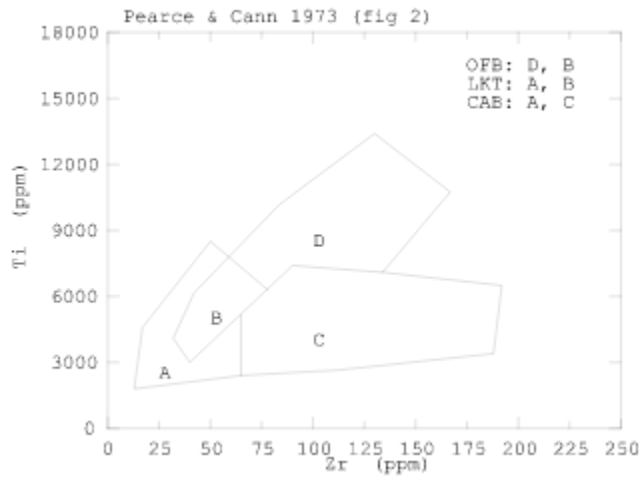
Refs: Pearce 1975



Pearce and Cann 1973: figure 2

CAB Calc-Alkaline Basalts
IAB Island Arc Basalts
LKT Low Potassium Tholeiites
OFB Ocean Floor Basalts
WPB Within Plate Basalts

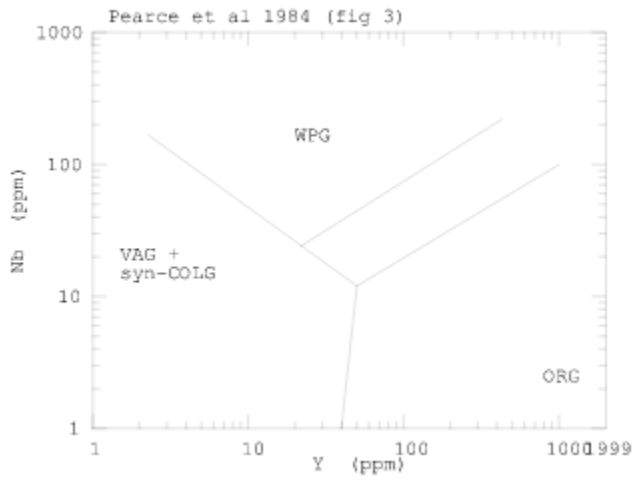
Ref: Pearce and Cann 1973



Pearce et al 1984: figure 3

ORG Ocean Ridge Granites
syn-COLG Syn-Collision Granites
VAG Volcanic Arc Granites
WPG Within Plate Granites

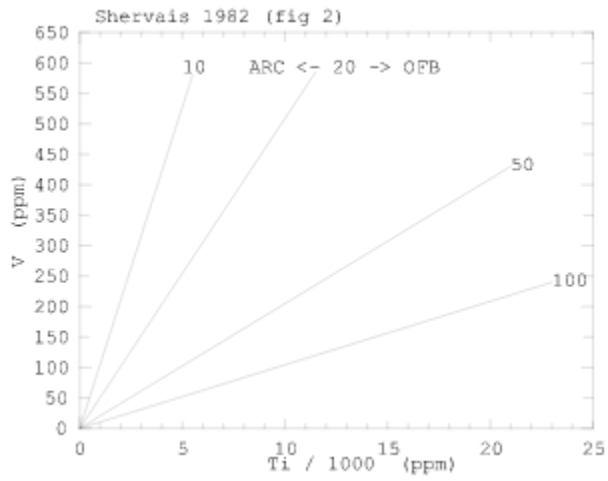
Ref: Pearce et al 1984



Shervais 1982: figure 2

ARC ARC Tholeiites
OFB Ocean Floor Basalts

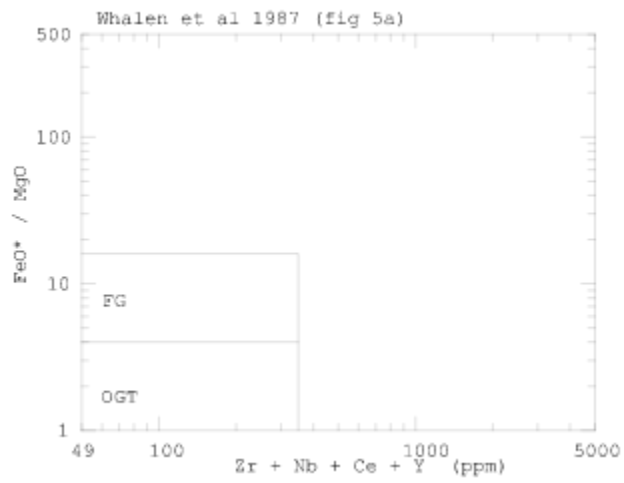
Ref: Shervais 1982



Whalen et al 1987: figure 5a

FG Fractionated Felsic Granites
OGT Orogenic Granite Types (?)
(unfractionated M-, I- and S-type granites)

Ref: Whalen et al 1987



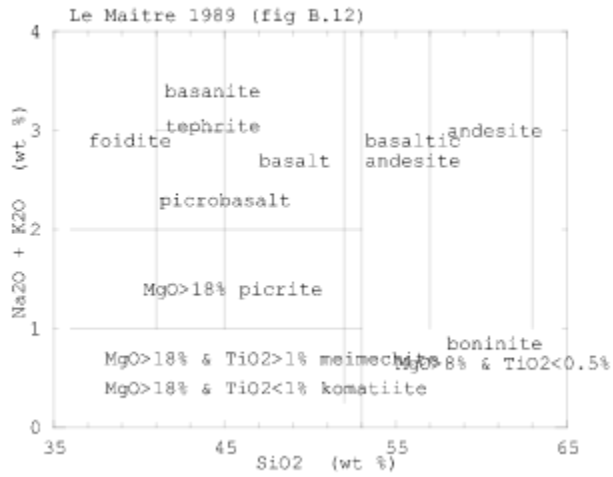
Wood 1980: figure 1a

A N-type MORB
B E-type MORB and tholeiitic WPB and differentiates
C Alkaline WPB and differentiates
D Destructive PMB and differentiates
WPB within-plate basalts
PMB plate-margin basalts
MORB mid-ocean ridge basalts

Ref: Wood 1980

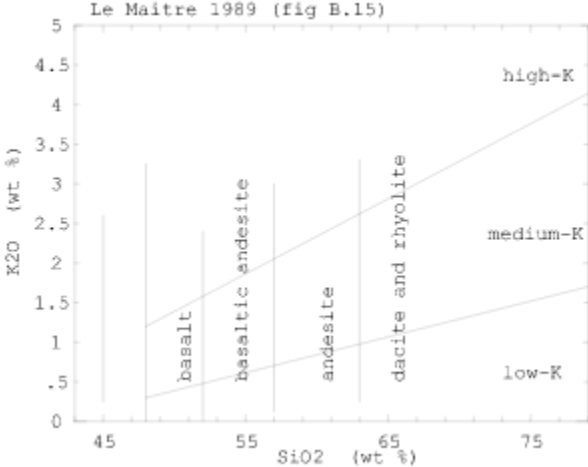
LeMaitre 1989: figure B.12

Ref: [LeMaitre 1989](#)



LeMaitre 1989: figure B.15

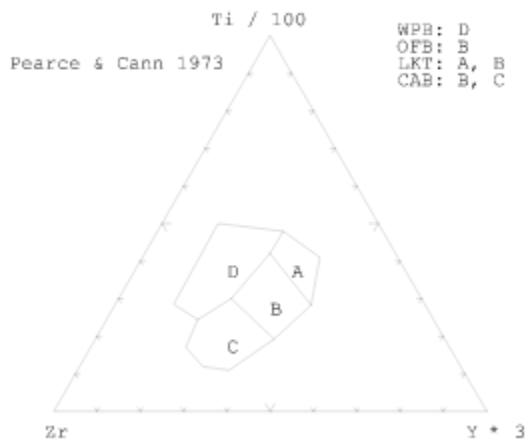
Ref: LeMaitre 1989



Pearce and Cann 1973: figure 3

CAB Calc-Alkaline Basalts
IAB Island Arc Basalts
LKT Low Potassium Tholeiites
OFB Ocean Floor Basalts
WPB Within Plate Basalts

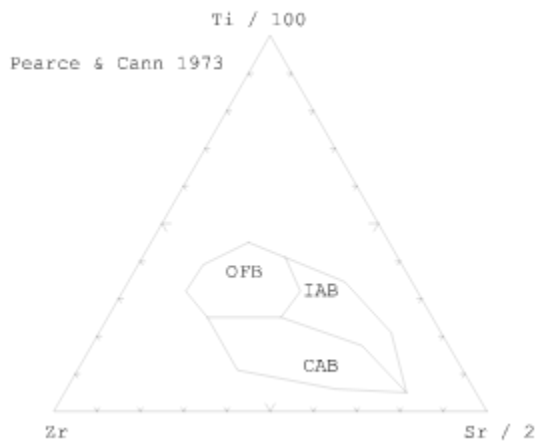
Ref: Pearce and Cann 1973



Pearce and Cann 1973: figure 4

CAB Calc-Alkaline Basalts
IAB Island Arc Basalts
LKT Low Potassium Tholeiites
OFB Ocean Floor Basalts
WPB Within Plate Basalts

Ref: Pearce and Cann 1973



Debon and Le Fort 1983: figure 2b

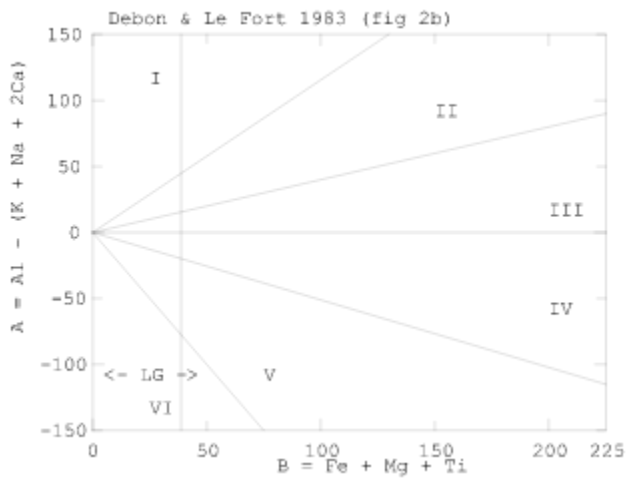
Peraluminous

- I muscovite or muscovite > biotite
- II biotite > muscovite
- III biotite

Metaluminous

- IV mainly hornblende and biotite
(biotite, hornblende, orthopyroxene,
clinopyroxene, primary epidote, sphene)
- V high prop cpx +/- primary epidote +/- sphene
- VI exceptional igneous rocks
- LG Leuco Granitoids

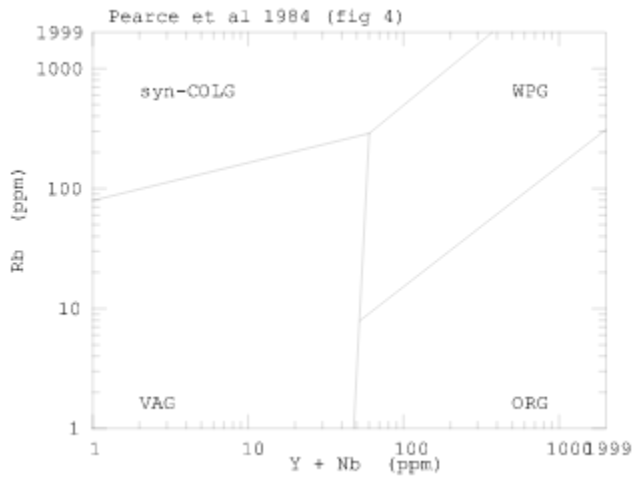
Ref: Debon and Le Fort 1983



Pearce et al 1984: figure 4

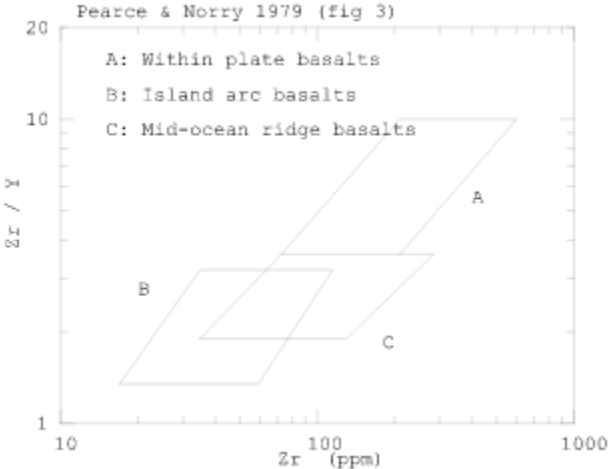
ORG Ocean Ridge Granites
syn-COLG Syn-Collision Granites
VAG Volcanic Arc Granites
WPG Within Plate Granites

Ref: [Pearce et al 1984](#)



Pearce and Norry 1979: figure 3

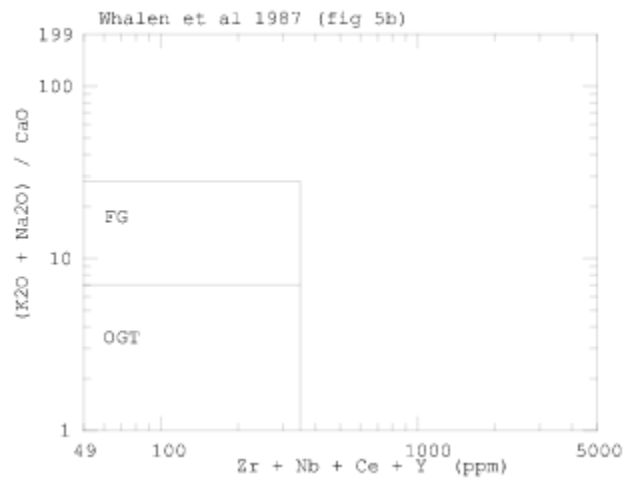
Ref: Pearce and Norry 1979



Whalen et al 1987: figure 5b

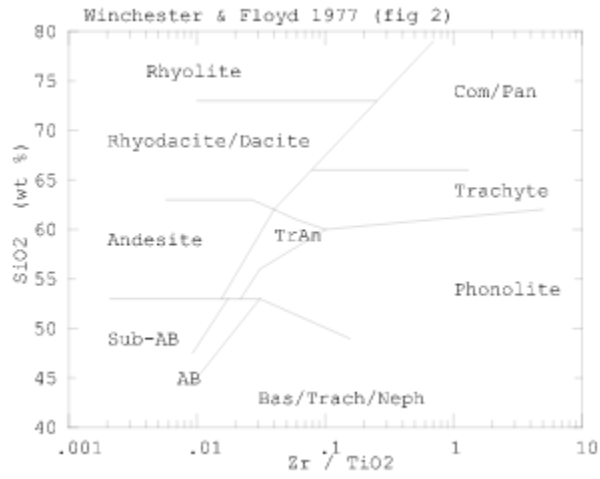
FG Fractionated Felsic Granites
OGT Orogenic Granite Types (?)
(unfractionated M-, I- and S-type granites)

Ref: Whalen et al 1987



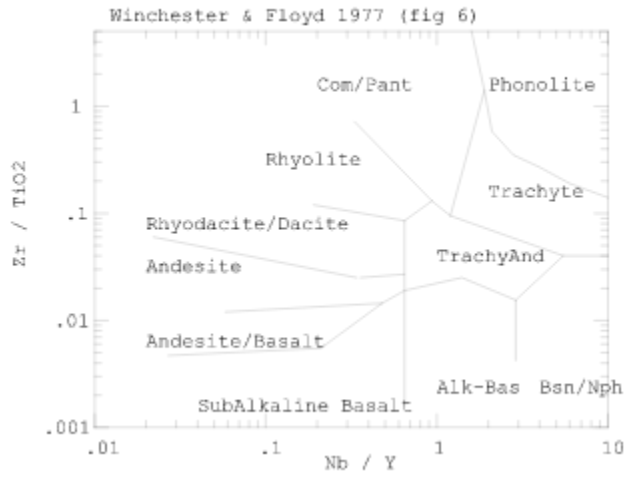
Winchester and Floyd 1977: figure 2

Ref: Winchester and Floyd 1977



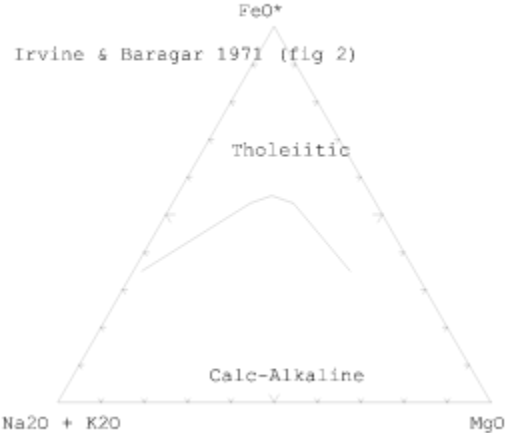
Winchester and Floyd 1977: figure 6

Ref: Winchester and Floyd 1977



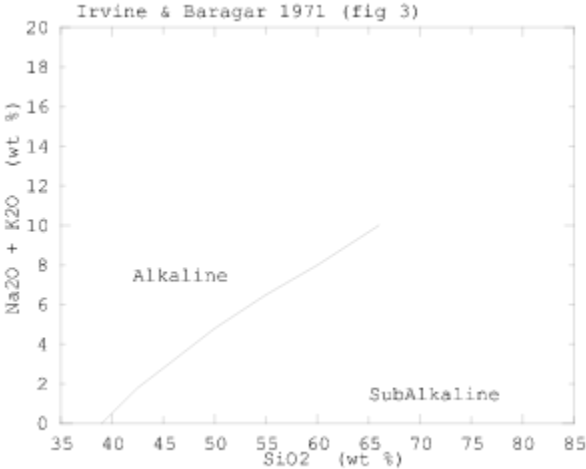
Irvine and Baranger 1971: figure 2

Ref: Irvine and Baranger 1971



Irvine and Baranger 1971: figure 3

Ref: Irvine and Baranger 1971



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C.J.Allegre and J.F.Minister, 1978

Quantitative models of trace element behaviour in magmatic processes,
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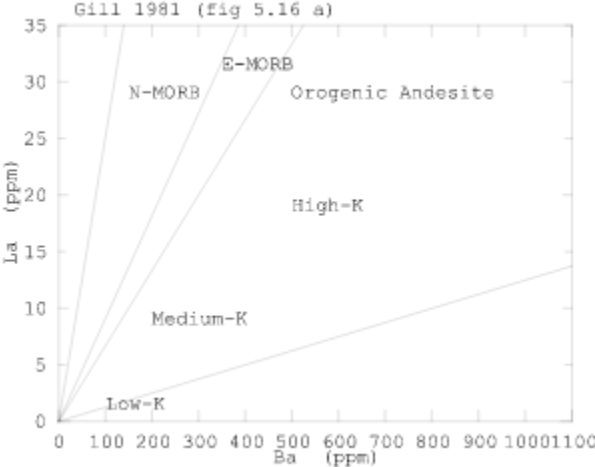
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**"Geochemical Reference Material Compositions: Rocks, Minerals, Sediments,
Soils, Carbonates, Refractories & Ores Used in Research & Industry,"**

CRC Press, Boca Raton.

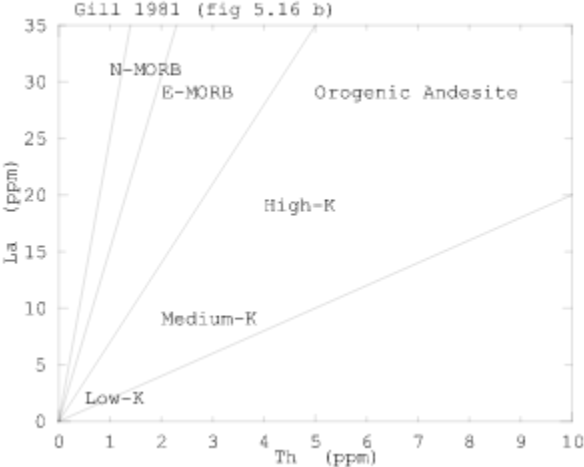
Gill 1981: figure 5.16a

Ref: Gill 1981



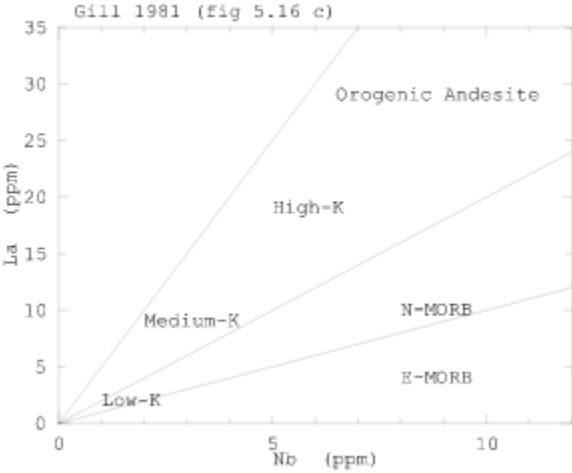
Gill 1981: figure 5.16b

Ref: Gill 1981



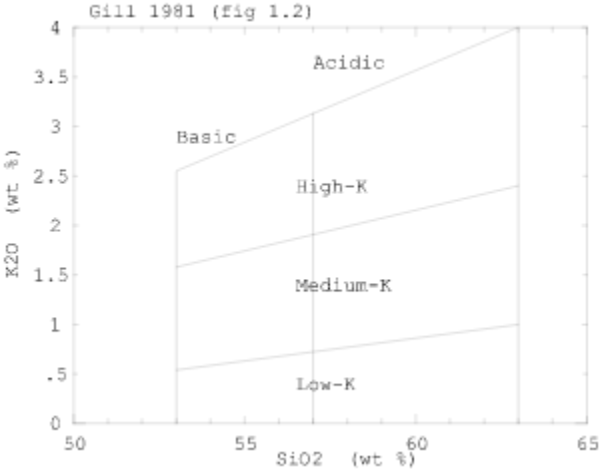
Gill 1981: Figure 5.16c

Ref: Gill 1981



Gill 1981: figure 12

Ref: Gill 1981



Registration Info

NewPet is Shareware. In other words, you can try it before you buy it. You may distribute copies of this package as long as the files are not modified in any way and are distributed intact. You cannot charge for copies of the program itself, only the media.

If you like it, let us know. A voluntary registration of **\$25 CDN** (no GST or PST) or **\$20 US** would be greatly appreciated and would help to expedite future enhancements. I also keep a mailing list of users and will let you know when a major revision is available.

Make any cheques or money orders payable to:

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Department of Earth Sciences**

and send them along with your mailing address to the address below.

We can also handle credit cards (**Visa** or **Master Card** only, please include expiration date and signature) and purchase orders. In these cases we need a hard copy of the request (a fax will do.)

Please indicate what size disk that you prefer (3.5" or 5.25".)

If you have questions, suggestions, or are registering please contact:

Daryl Clarke
Memorial University of Newfoundland
Department of Earth Sciences
Centre for Earth Resources Research
St. John's, NF, Canada A1B 3X5

(709) 737 8346 telephone
(709) 737 8142
(709) 737 2589 fax

daryl@sparky2.esd.mun.ca email
daryl@cs.mun.ca

Getting NewPet via Internet

Getting NewPet via the Internet

If you have Internet ftp access, you can get the latest version of NewPet at the following site:
sparky2.esd.mun.ca (IP address 134.153.11.101)

Here is a sample session showing the procedure. What you have to type is in plain text.
What you see is in **bold** text.

```
ftp -i
```

```
ftp> open sparky2.esd.mun.ca
```

```
Connected to sparky2.esd.mun.ca.
```

```
220 sparky2 FTP server (SunOS 4.1) ready.
```

```
Name (sparky2.esd.mun.ca:daryl): ftp
```

```
331 Guest login ok, send ident as password.
```

```
Password: daryl@garfield.cs.mun.ca
```

```
230 Guest login ok, access restrictions apply.
```

```
ftp> dir
```

```
200 PORT command successful.
```

```
150 ASCII data connection for /bin/ls (134.153.1.1,3725) (0 bytes).
```

```
total 6
```

```
dr-xr-xr-x 214 1 512 Apr 1 1991 bin
```

```
dr-xr-xr-x 214 1 512 Apr 1 1991 dev
```

```
dr-xr-xr-x 214 1 512 Jun 3 1991 etc
```

```
drwxr-xr-x 2 0 1 512 Oct 8 18:54 jody
```

```
drwxr-xr-x 3 11 1 512 Sep 14 10:41 pub
```

```
dr-xr-xr-x 314 1 512 Apr 1 1991 usr
```

```
226 ASCII Transfer complete.
```

```
364 bytes received in 0.75 seconds (0.48 Kbytes/s)
```

```
ftp> cd pub
```

```
250 CWD command successful.
```

```
ftp> dir
```


200 PORT command successful.

150 ASCII data connection for /bin/ls (134.153.1.1,3731) (0 bytes).

total 7

drwxr-xr-x 2 11 10 512 Sep 14 10:43 geo-progs

-rwxr-xr-x 1 11 10 5647 Jun 30 17:06 price.xrf

226 ASCII Transfer complete.

139 bytes received in 0.1 seconds (1.3 Kbytes/s)

ftp> cd geo-progs

250 CWD command successful.

ftp> dir

200 PORT command successful.

150 ASCII data connection for /bin/ls (134.153.1.1,3736) (0 bytes).

total 1031

-rwxr-xr-x 1 11 10 141 Sep 14 10:45 .message

-rwxr-xr-x 1 11 10 0 Apr 1 1993 000_these_are_BINARY_files

**-rwxr-xr-x 1 11 10 0 Apr 1 1993
001_set_ftp_transfer_accordingly**

**-rwxr-xr-x 1 11 1 9 Apr 1 1993
002_NewPet_version:_93.02.16**

-rwxr-xr-x 1 11 10 303 Oct 12 19:02 INDEX

-rwxr-xr-x 1 11 1 1772 Apr 8 1993 README

-rwxr-xr-x 1 11 1 133275 Apr 1 1993 amphibol.zip

-rwxr-xr-x 1 11 10 590469 Apr 1 1993 np2x.exe

-rwxr-xr-x 1 11 10 279013 Apr 1 1993 quikplot.exe

-rwxr-xr-x 1 11 10 1383 Apr 1 1993 readme.qp

226 ASCII Transfer complete.

718 bytes received in 0.083 seconds (8.5 Kbytes/s)

ftp> binary

200 Type set to I.

ftp> get np2x.exe

200 PORT command successful.

150 Binary data connection for np2x.exe (134.153.1.1,3739) (590469 bytes).

226 Binary Transfer complete.

local: np2x.exe remote: np2x.exe

590469 bytes received in 4.6 seconds (1.3e+02 Kbytes/s)

ftp> quit

221 Goodbye.

