R documentation

of 'Paulick.Rd'

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Paulick	*Al2O3/SiO2 - MgO/SiO2 (Paulick et al. 2006)*

Description

Assigns data for Al_2O_3/SiO_2 vs. MgO/SiO_2 binary diagram into Figaro template (list 'sheet') and appropriate values into 'x.data' and 'y.data'.

Usage

```
Paulick()
```

Arguments

None.

Details

According to *Paulick et al. (2006)*, the global analyses of mantle peridotites form a 'Terrestrial Array' in the binary plot Al_2O_3/SiO_2 vs. MgO/SiO_2. This linear correlation reflects the successive magmatic depletion of a primitive mantle and highly depleted compositions are characterized by low Al_2O_3/SiO_2 values (<0.01; *Jagoutz et al. 1979; Hart and Zindler 1986*).

Al$_2$O$_3$/SiO$_2$ − MgO/SiO$_2$ plot (Paulick et al. 2006)
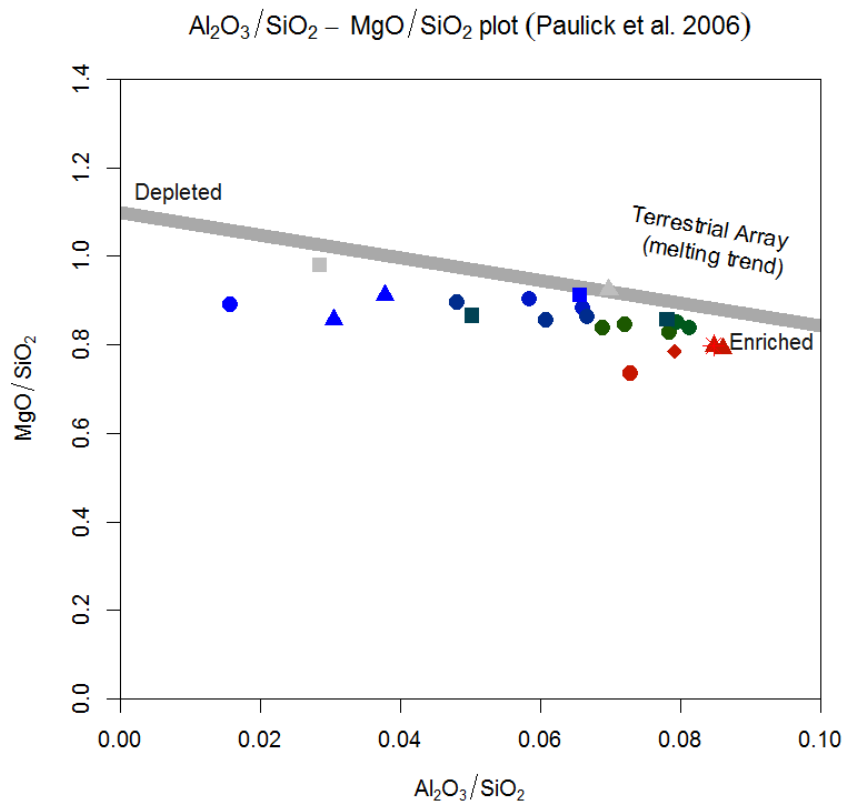
Value

sheet	list with Figaro Style Sheet data
x.data	x coordinates
y.data	y coordinates

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References

Hart SR, Zindler A (1986) In search of a Bulk-Earth composition. Chem Geol 57: 247-267 doi: 10.1016/10.1016/0009-2541(86)90053-7

Jagoutz E, Palme H, Baddenhausen H, Blum K, Cendales M, Dreibus G, Spettel B, Waenke H, Lorenz V (1979) The abundances of major, minor and trace elements in the Earth's mantle as derived from primitive ultramafic nodules. Geochim Cosmochim Acta Suppl 10: 2031-2050

Paulick H, Bach W, Godard M, De Hoog JCM, Suhr G, Harvey J (2006) Geochemistry of abyssal peridotites (Mid-Atlantic Ridge, 15o20'N, ODP Leg 209): implications for fluid/rock interaction in slow spreading environments. Chem Geol 234: 179-210 doi: 10.1016/j.chemgeo.2006.04.011

See Also

figaro plotDiagram

Examples

```
# plot the diagram
# assuming a dataset is loaded, of course!
## Not run:
plotDiagram("Paulick",FALSE,TRUE)

## End(Not run)
```