

## List of Suggested Key Parameters for GEOTRACES Ocean Sections

This is not a list of all TEIs expected to be measured during GEOTRACES. Rather, it represents those TEIs (and related measurements) that are likely to be particularly fruitful to measure on all ocean sections and for which global coverage is highly desirable. It is not envisaged that each of these parameters will be measured at all stations, but that at least some measurements of these key parameters will be made on all GEOTRACES ocean sections.

Key parameter	Examples of use
<i>Trace elements</i>	
<b>Fe</b>	Essential micronutrient
<b>Al</b>	Tracer of Fe inputs (from mineral dust and elsewhere)
<b>Zn</b>	Micronutrient; potentially toxic at high concentration
<b>Mn</b>	Tracer of Fe inputs and redox cycling
<b>Cd</b>	Essential micronutrient; palaeoproxy for nutrient content of waters
<b>Cu</b>	Micronutrient; potentially toxic at high concentration
<i>Stable isotopes</i>	
<b>d15N (nitrate)</b>	Modern and palaeoproxy for nitrate cycling
<b>d13C</b>	Modern and palaeoproxy for nutrient content and ocean circulation
<i>Radioactive isotopes</i>	
<b>230Th</b>	Constant flux monitor in sediments; tracer of modern ocean circulation and particle scavenging
<b>231Pa</b>	Palaeoproxy for circulation and productivity; tracer of modern particle processes
<i>Radiogenic isotopes</i>	
<b>Pb isotopes</b>	Tracer of natural and contaminant sources to the ocean
<b>Nd isotopes</b>	Tracer of natural sources of TEIs to the ocean
<i>Other parameters</i>	
<b>Stored sample</b>	To allow future work
<b>Particles</b>	Essential transport vector for many TEIs
<b>Aerosols</b>	Essential source of TEIs to the surface ocean

Source: GEOTRACES Science Plan