S
N
Guam and trench slope
Saipan
DSDP Site 458 Site 459
Bonin Islands
Bonin Ridge scarp
Izu-Bonin Trench slope
Omachi Seamount
Izu fore arc
35 Ma
40 Ma
45 Ma
50 Ma
55 Ma
Arc tholeiites and calc-alkaline lavas
Transitional suites (HMA)
Felsic rocks
Boninite and its differentiates
Fore-arc basalts
35-36
41-35
?
(43.1-44.0)
45.1 ± 0.4
?
49.3 ± 0.4
>46.9
?
51.1 ± 1.5
(basalt)
51.5 ± 0.7
(U-Pb: gabbro)
(41.0)
44.0 ±0 .3
44.3 ± 0.3
44.72 ± 0.12
44.74 ± 0.23
45.8 ± 0.3
46.0 ± 0.3
46.6 ± 0.8
46.7 ± 0.6
47.5 ± 0.4
47.81 ± 0.17
48.04 ± 0.17
48.2 ± 0.3
35.5 ± 0.1
37.2 ± 0.7
41.84 ± 0.14
42.86 ± 0.18
43.88 ± 0.21
44.78 ± 0.16
46.02 ± 0.07
?
48.2 ± 1.2
48.3 ± 1.0
49.8 ± 0.7
50.1 ± 2.3
51.0 ± 1.0
52 ± 4
(basalt)
51.6 ± 0.8
51.7 ± 0.8
(U-Pb: gabbro)
31.8 ± 0.1e
37.3 ± 0.2e
40.4 ± 0.8
40.6 ± 0.3
(Site 792)
42.3± 0.6
(Site 793)
45.3 ± 0.7
45.8 ± 0.3
46.7 ± 0.4
45.7 ± 0.2
(Site 786)