100
10
1
0.1
Chondrite-normalized concentrations
La
Ce
Pr
Nd
Pm
Sm
Eu
Gd
Tb
Dy
Ho
Er
Tm
Yb
Lu
Rare earth element
Fore-arc basalt
(52-50 Ma: Bonin Ridge)
HMA
(45-44 Ma: Chichijima)
Boninite
(48-46 Ma: Chichijima)
Tholeiitic and calc-alkaline
basalt to andesite
(44 Ma: Hahajima)