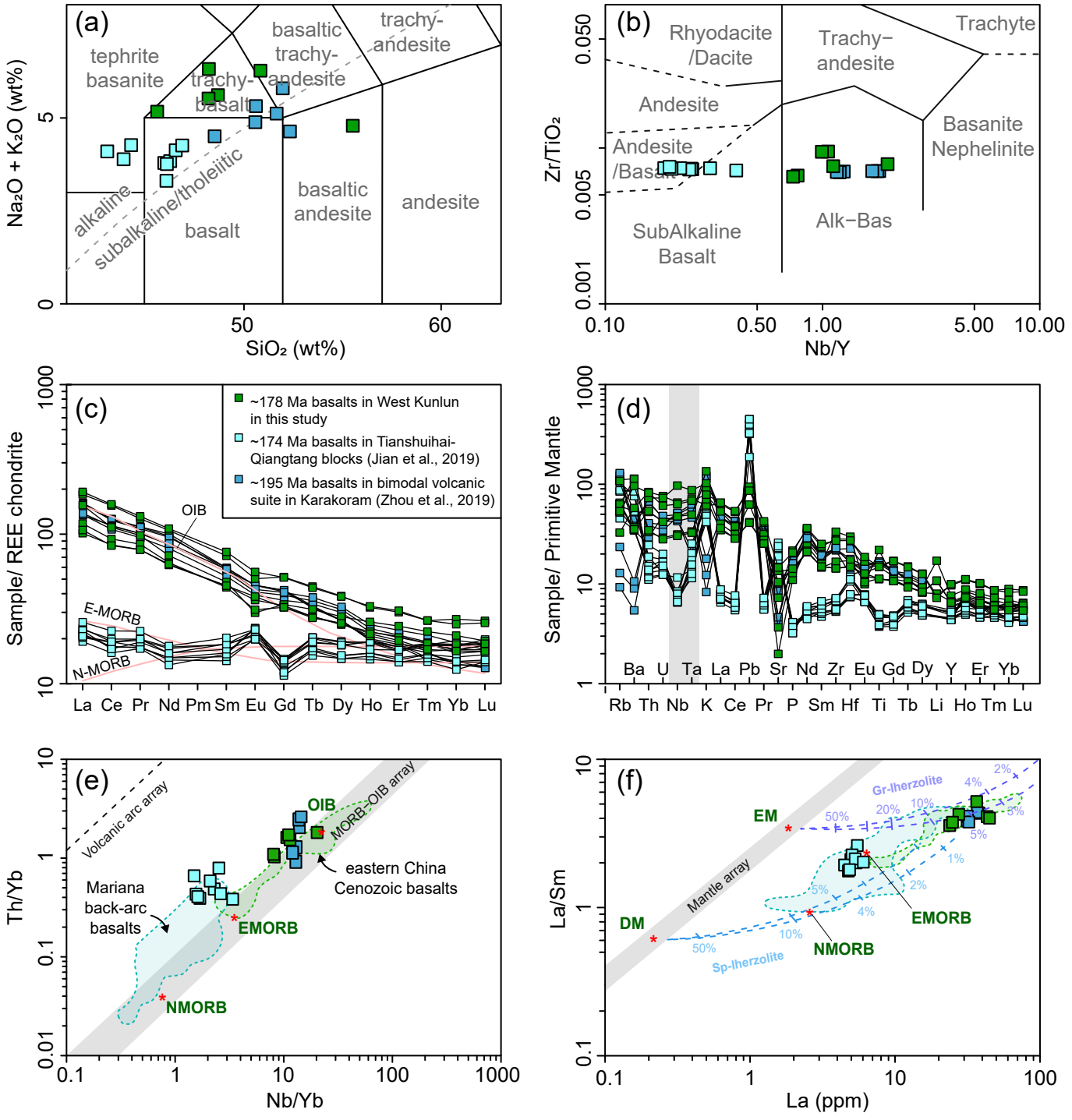
(a)
tephrite basanite
trachy-basalt
basaltic trachy-andesite
trachy-andesite
alkaline
subalkaline/tholeiitic
basalt
basaltic andesite
andesite
Na₂O + K₂O (wt%)
SiO₂ (wt%)
(b)
Rhyodacite /Dacite
Trachy−andesite
Trachyte
Andesite
Andesite /Basalt
Basanite Nephelinite
SubAlkaline Basalt
Alk−Bas
Zr/TiO₂
Nb/Y
(c)
~178 Ma basalts in West Kunlun in this study
~174 Ma basalts in Tianshuihai-Qiangtang blocks (Jian et al., 2019)
~195 Ma basalts in bimodal volcanic suite in Karakoram (Zhou et al., 2019)
OIB
E-MORB
N-MORB
Sample/ REE chondrite
La Ce Pr Nd Pm Sm Eu Gd Tb Dy Ho Er Tm Yb Lu
(d)
Sample/ Primitive Mantle
Ba U Ta La Pb Sr Nd Zr Eu Gd Dy Y Er Yb
Rb Th Nb K Ce Pr P Sm Hf Ti Tb Li Ho Tm Lu
(e)
Volcanic arc array
MORB-OIB array
OIB
eastern China Cenozoic basalts
Mariana back-arc basalts
EMORB
NMORB
Th/Yb
Nb/Yb
(f)
Gr-lherzolite
EM
Mantle array
DM
Sp-lherzolite
EMORB
NMORB
La/Sm
La (ppm)