

Explanations of Auxiliary Materials 1 to 8

Auxiliary Material 1: Representative magma compositions in SW Japan arc (pdf)

Auxiliary Material 2: Analytical results of major, trace, and Sr–Nd–Hf–Pb isotope compositions for the late Cenozoic lavas from SW Japan arc (pdf)

Auxiliary Material 3: Major and trace element analyses of hornblende phenocryst from Daisen adakite (Karasugasen dome) (pdf)

Auxiliary Material 4: Results of least square mass balance calculations for high-pressure fractionation of a basalt magma (pdf)

Auxiliary Material 5: Primary magma compositions estimated by fractionation correction (pdf)

Auxiliary Material 6: Target primary magma compositions and calculation results by Arc Basalt Simulator version 4 including ranges of chemical compositions and fitting parameters for SW Japan arc magmas (pdf)

Auxiliary Material 7: Source material compositions used for Arc Basalt Simulator version 4 calculations (pdf)

Auxiliary Material 8: Dynamic content folder. A Zip file which includes (1) Arc Basalt Simulator version 4 Excel spreadsheet calculation software package named

“ARC_BASALT_SIMULATOR_ver.4.00.xlsm” and (2) a read me file for installation.