

Revision 1

Supplementary figures S1 to S8

Figure S1. Mg-Spinel assemblages in Mg-spinel-bearing clasts No.1 — No.8

Figure S2. Mg-Spinel assemblages in Mg-spinel-bearing clasts No.9 — No.16

Figure S3. Mg-Spinel assemblages in Mg-spinel-bearing clasts No.17 — No.24

Figure S4. Mg-Spinel assemblages in Mg-spinel-bearing clasts No.25 — No.32

Figure S5. Mg-Spinel assemblages in Mg-spinel-bearing clasts No.33 — No.40

Figure S6. Mg-Spinel assemblages in Mg-spinel-bearing clasts No.41 — No.48

Figure S7. Mg-Spinel assemblages in Mg-spinel-bearing clasts No.49 — No.56

Figure S8. Mg-Spinel assemblages in Mg-spinel-bearing clasts No.57 — No.64

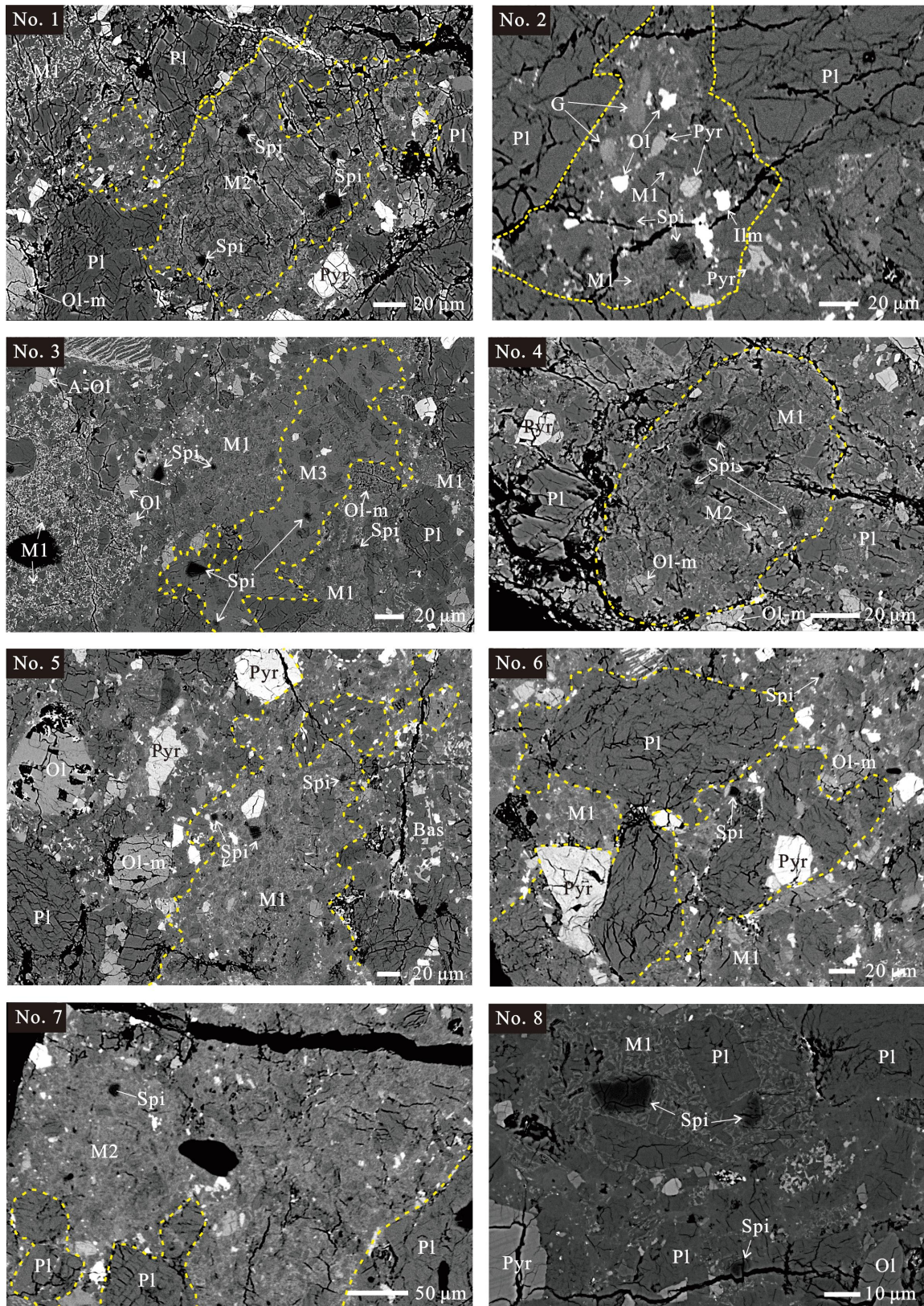


Fig. S1. Mg-Spinel assemblages in Mg-spinel-bearing clasts No.1 – No.8

Pl, Plagioclase; Pyr, Pyroxene; Ol, Olivine; Ol-m, Olivine-melt; Spi, Spinel; Ilm, Ilmenite; G, Glass; Bas, Basaltic clast; M1, M2, M3 were corresponding melt for S1, S2, S3 respectively.

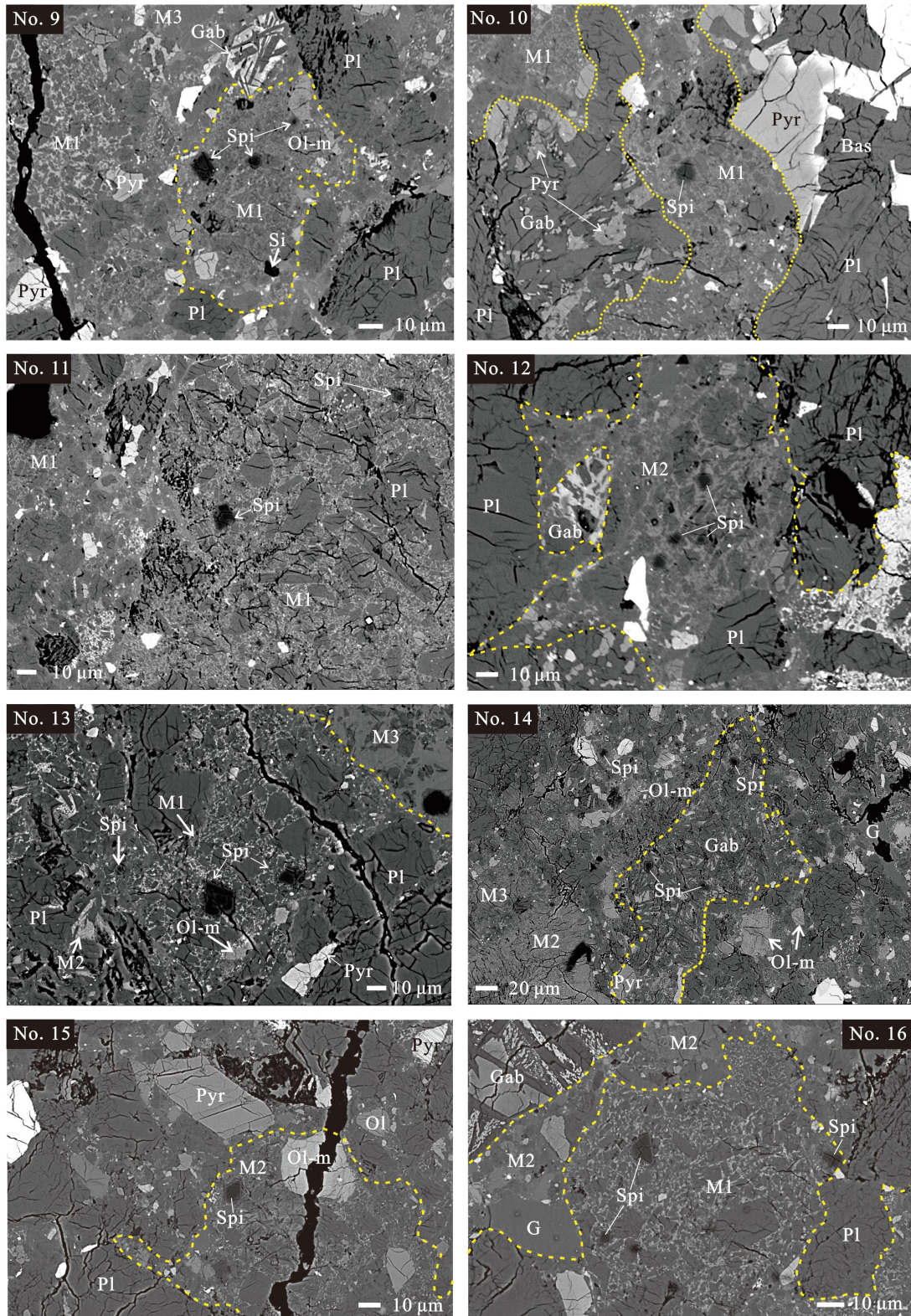


Fig. S2. Mg-Spinel assemblages in Mg-spinel-bearing clasts No.9—No.16

Pl, Plagioclase; Pyr, Pyroxene; Ol, Olivine; Ol-m, Olivine-melt; Spi, Spinel; Ilm, Ilmenite; G, Glass; Bas, Basaltic clast; M1, M2, M3 were corresponding melt for S1, S2, S3 respectively.

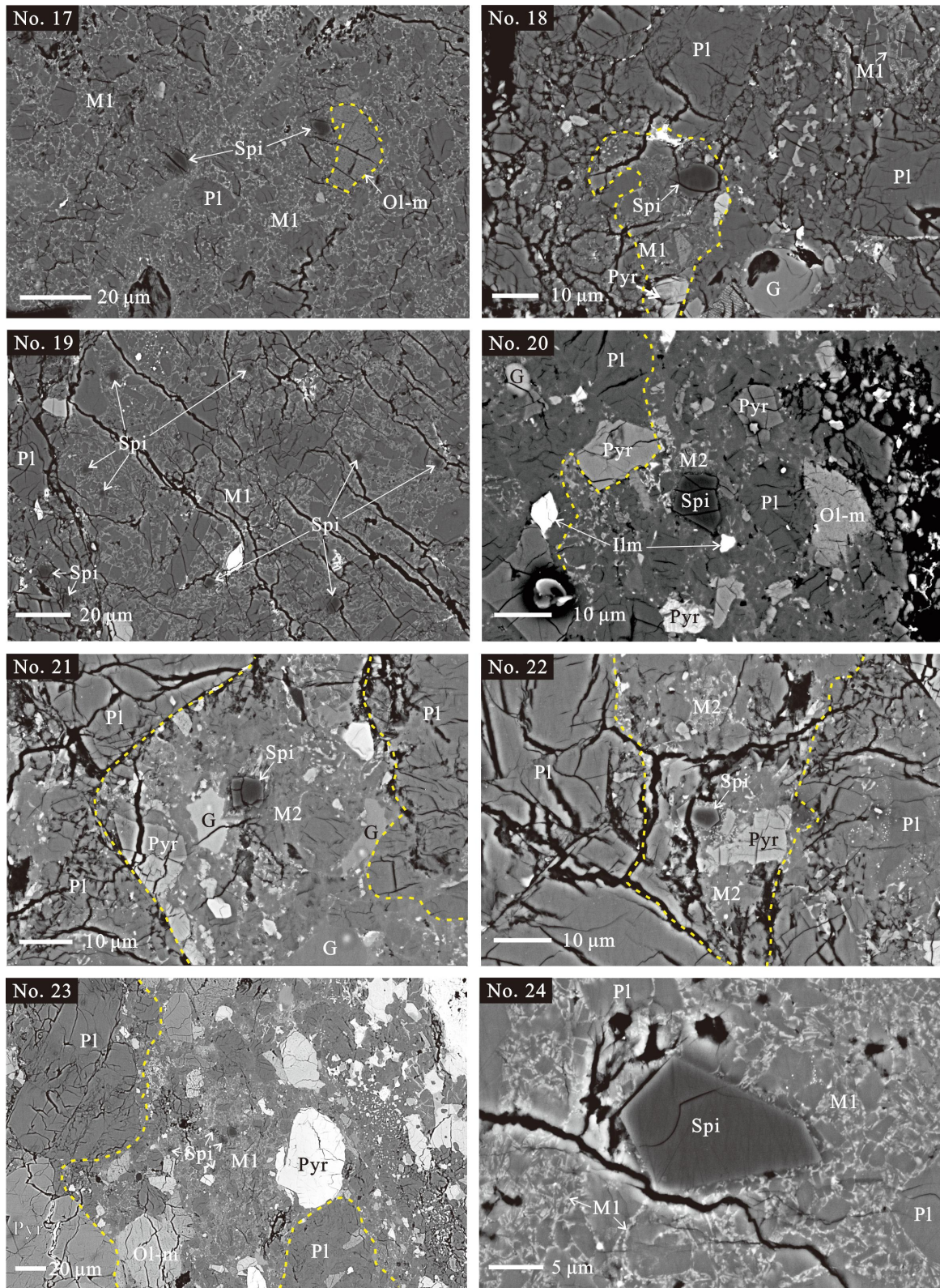


Fig. S3. Mg-Spinel assemblages in Mg-spinel-bearing clasts No.17—No.24
Pl, Plagioclase; Pyr, Pyroxene; Ol, Olivine; Ol-m, Olivine-melt; Spi, Spinel; Ilm, Ilmenite; G, Glass; M1, M2, M3 were corresponding melt for S1, S2, S3 respectively.

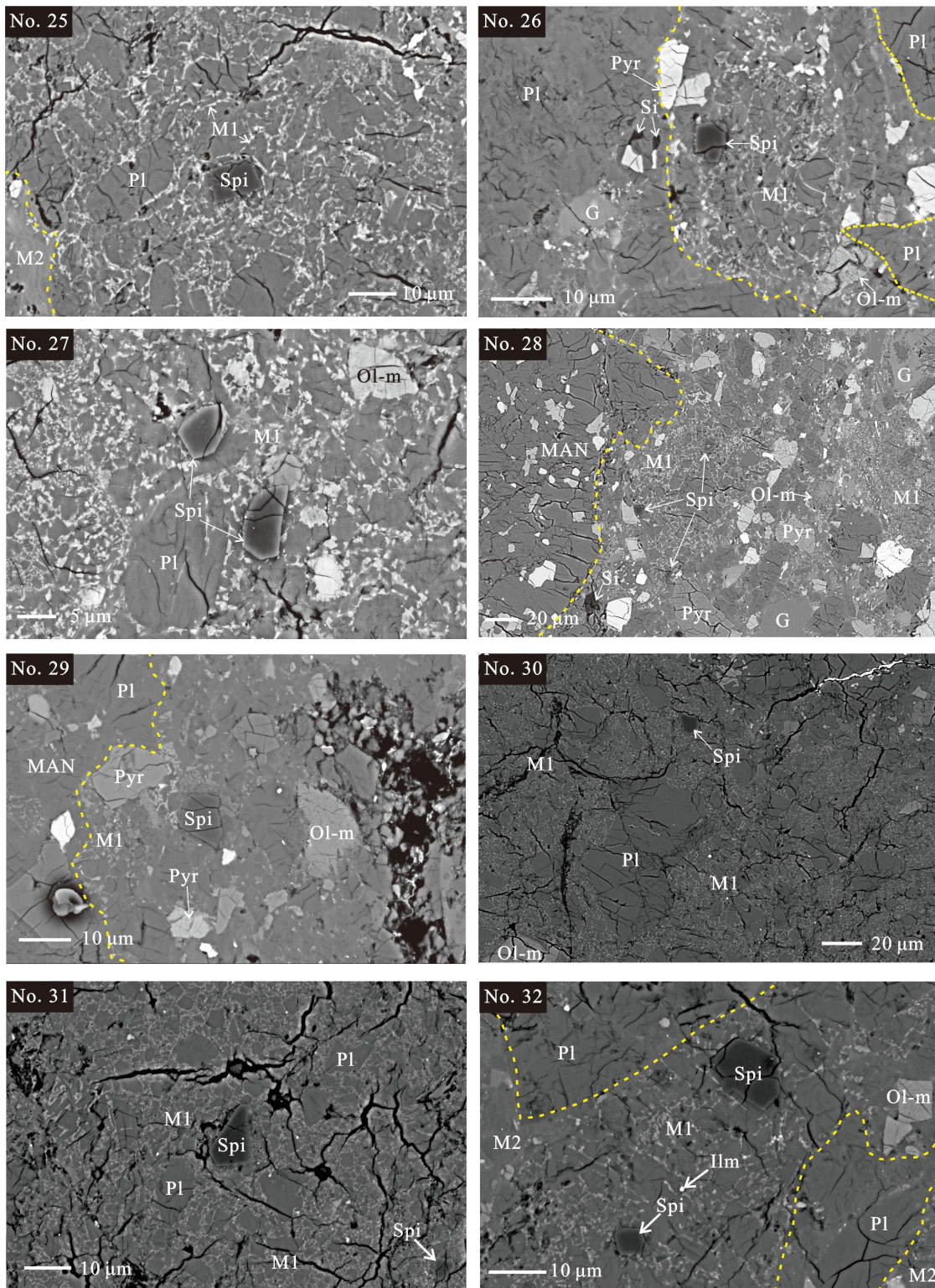


Fig. S4. Mg-Spinel assemblages in Mg-spinel-bearing clasts No.25—No.32

Pl, Plagioclase; Pyr, Pyroxene; Ol-m, Olivine-melt; R-ma, Recrystallized mafic minerals; Spi, Spinel; Ilm, Ilmenite; MAN, Magnesian anorthosite; Mask, Maskelynite; G, Glass; IM, Impact melt vein; M1, M2, M3 were corresponding melt for S1, S2, S3 respectively .

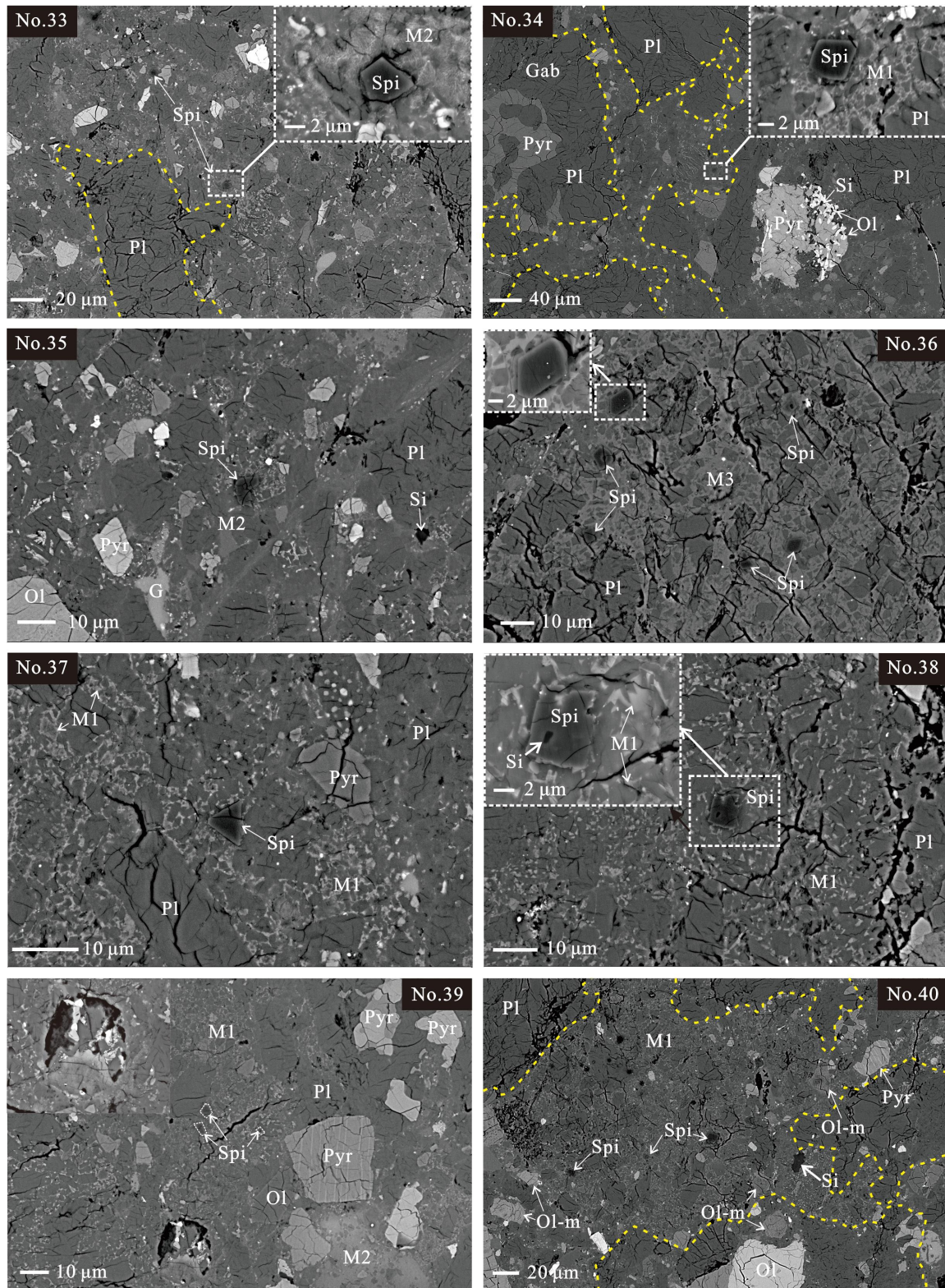


Fig. S5. Mg-Spinel assemblages in Mg-spinel-bearing clasts No.33 —No.40
Pl, Plagioclase; Pyr, Pyroxene; Ol, Olivine; Ol-m, Olivine-melt; Si, silica-enriched glass; Spi, Spinel; Ilm, Ilmenite; G, Glass; M1, M2, M3 were corresponding melt for S1, S2, S3 respectively.

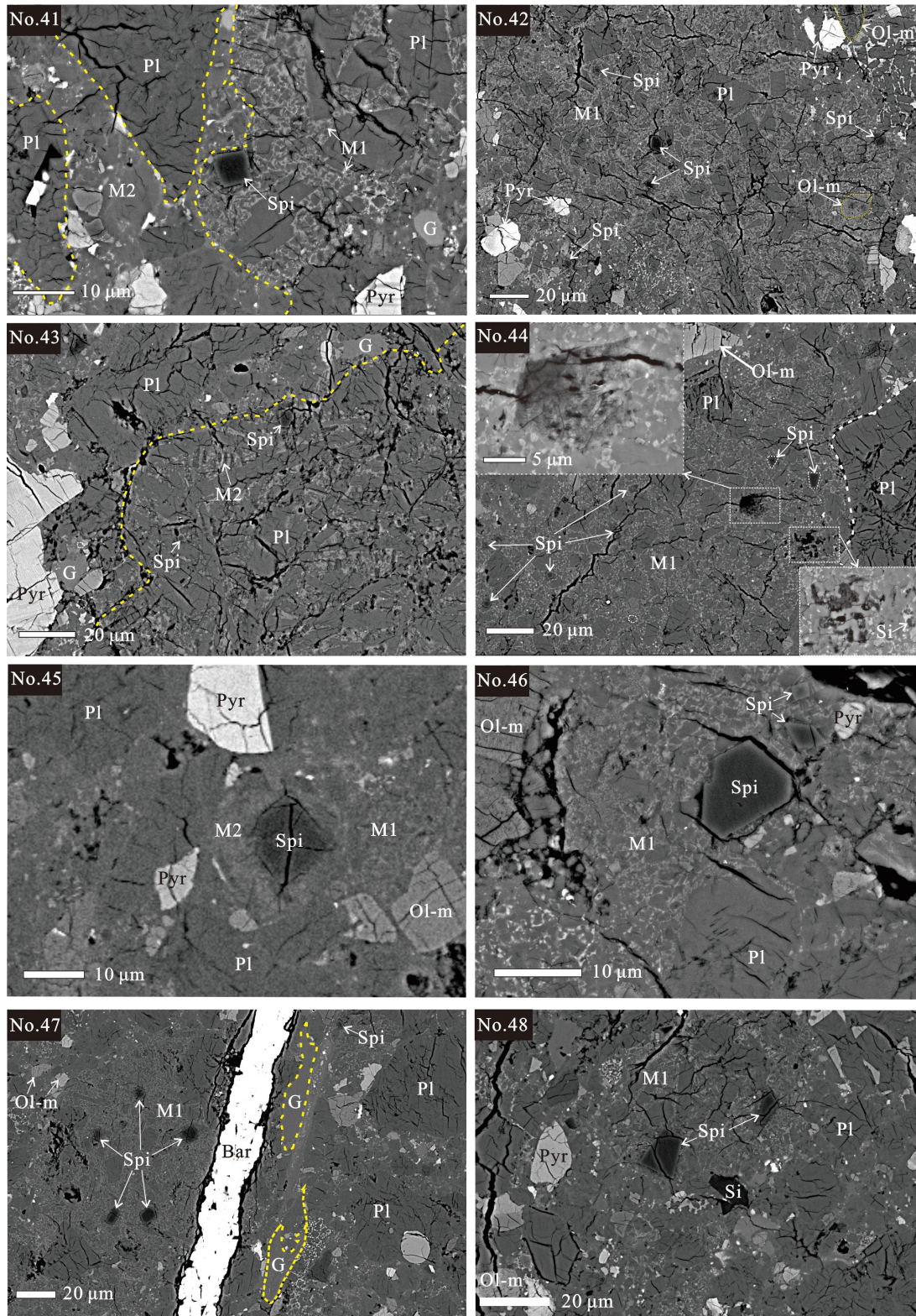


Fig. S6. Mg-Spinel assemblages in Mg-spinel-bearing clasts No.41 —No.48

Pl, Plagioclase; Pyr, Pyroxene; Ol-m, Olivine-melt; Spi, Spinel; G, Glass; M1, Melting inclusion of plagioclase; Si, Silica phase; Bar, Barite; M1, M2, M3 were corresponding melt for S1, S2, S3 respectively.

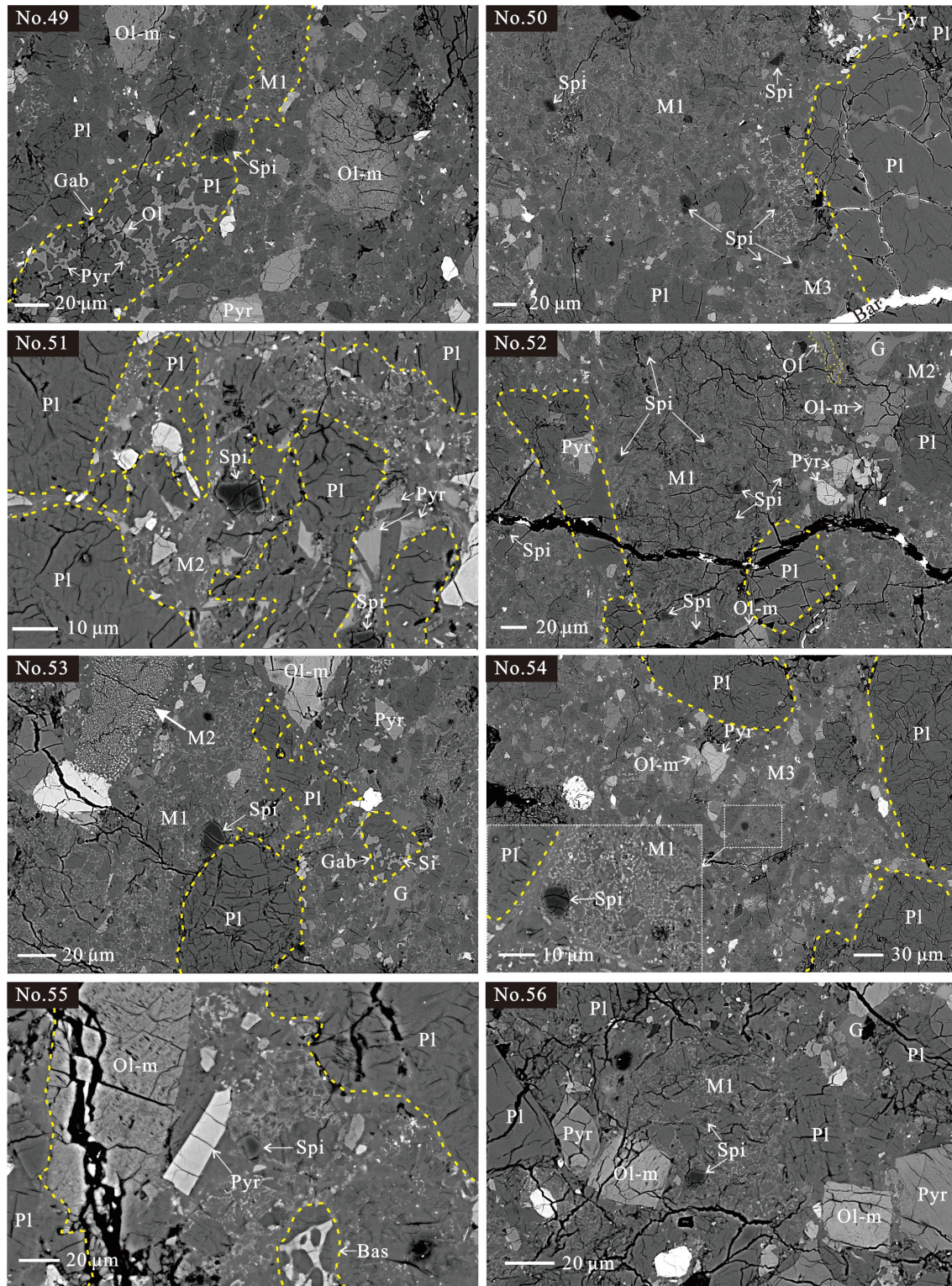


Fig. S7. Mg-Spinel assemblages in Mg-spinel-bearing clasts No.49–No.56

Pl, Plagioclase; Pyr, Pyroxene; Ol-m, Olivine-melt; Spi, Spinel; IM, Impact melt; G, Glass; Si, Silica phase; Bas, Basaltic clasts; Bar, Barite; M1, M2, M3 were corresponding melts for S1, S2, S3 respectively.

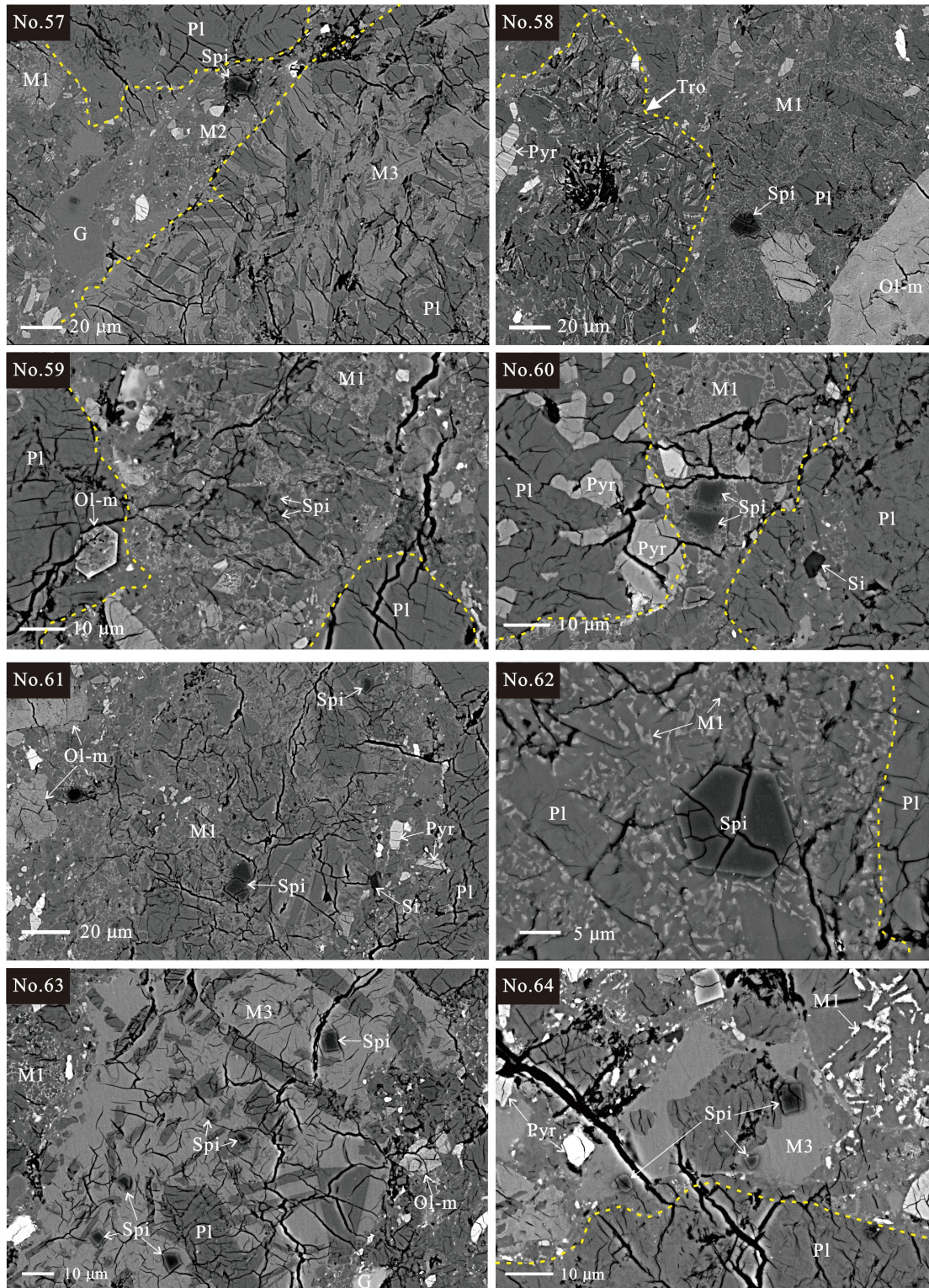


Fig. S8. Mg-Spinel assemblages in Mg-spinel-bearing clasts No.57—No.64

Pl, Plagioclase; Pyr, Pyroxene; Ol-m, Olivine-melt; Spi, Spinel; G, Glass; Si, Silica phase; MI, Melting inclusion of plagioclase; Bas, Basaltic clasts; M1, M2, M3 were corresponding melt for S1, S2, S3 respectively.