

Figures

Fig.1 Photograph of the Ag-Al alloy ribbons

Fig.2 SEM micrographs of the (a) $\text{Ag}_{30}\text{Al}_{70}$, (c) $\text{Ag}_{35}\text{Al}_{65}$ and (e) $\text{Ag}_{40}\text{Al}_{60}$ melt-spun samples (plan view); (b), (d) and (f) EDS results of $\text{Ag}_{30}\text{Al}_{70}$, $\text{Ag}_{35}\text{Al}_{65}$ and $\text{Ag}_{40}\text{Al}_{60}$ precursor alloy samples.

Fig.3 XRD patterns of the melt-spun Ag-Al ribbons

Fig.4. XRD patterns of Ag-Al samples under the dealloyed condition for 30 min.

Fig.5 SEM micrographs of the $\text{Ag}_{30}\text{Al}_{70}$ samples (plan view) under the dealloyed conditions for different periods of time: (a) 5 min, (b) 10 min, (c) 20 min, and (d) 30 min; (e) EDS pattern of $\text{Ag}_{30}\text{Al}_{70}$ sample dealloyed for 30 min.

Fig.6 SEM micrographs of the $\text{Ag}_{35}\text{Al}_{65}$ samples (plan view) under the dealloyed conditions for different periods of time: (a) 5 min, (b) 10 min, (c) 20 min, and (d) 30 min; (e) EDS pattern of $\text{Ag}_{35}\text{Al}_{65}$ sample dealloyed for 30 min.

Fig.7 SEM micrographs of the $\text{Ag}_{40}\text{Al}_{60}$ samples (plan view) under the dealloyed conditions for different periods of time: (a) 5 min, (b) 10 min, (c) 20 min, and (d) 30 min; (e) EDS pattern of $\text{Ag}_{40}\text{Al}_{60}$ sample dealloyed for 30 min.

Fig.8 Statistics of ligament size (a) and pore size (b) with the increasing dealloying time in different alloy samples.

Fig.9(a) TEM bright-field image with SAED pattern inset for $\text{Ag}_{35}\text{Al}_{65}$ ribbons dealloyed for 30 min; (b) Selected areas (marked by rectangles in Fig.9(a) magnified HRTEM bright-field image.

Fig.10 Log-log plot of ligament diameter versus dealloying time for samples.

Fig.11(a-c) HRTEM images of a cross section incised via FIB and corresponding DF-TEM (d) and EDS (e,f) results of the $\text{Ag}_{35}\text{Al}_{65}$ initial alloy.

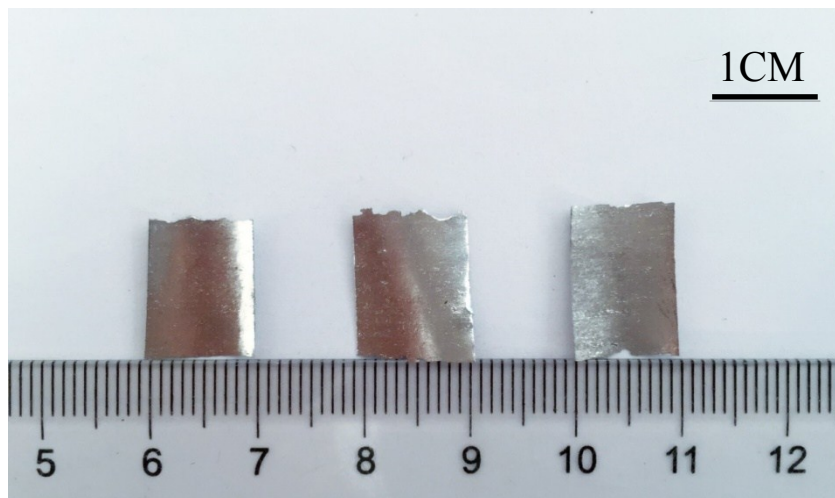


FIG. 1

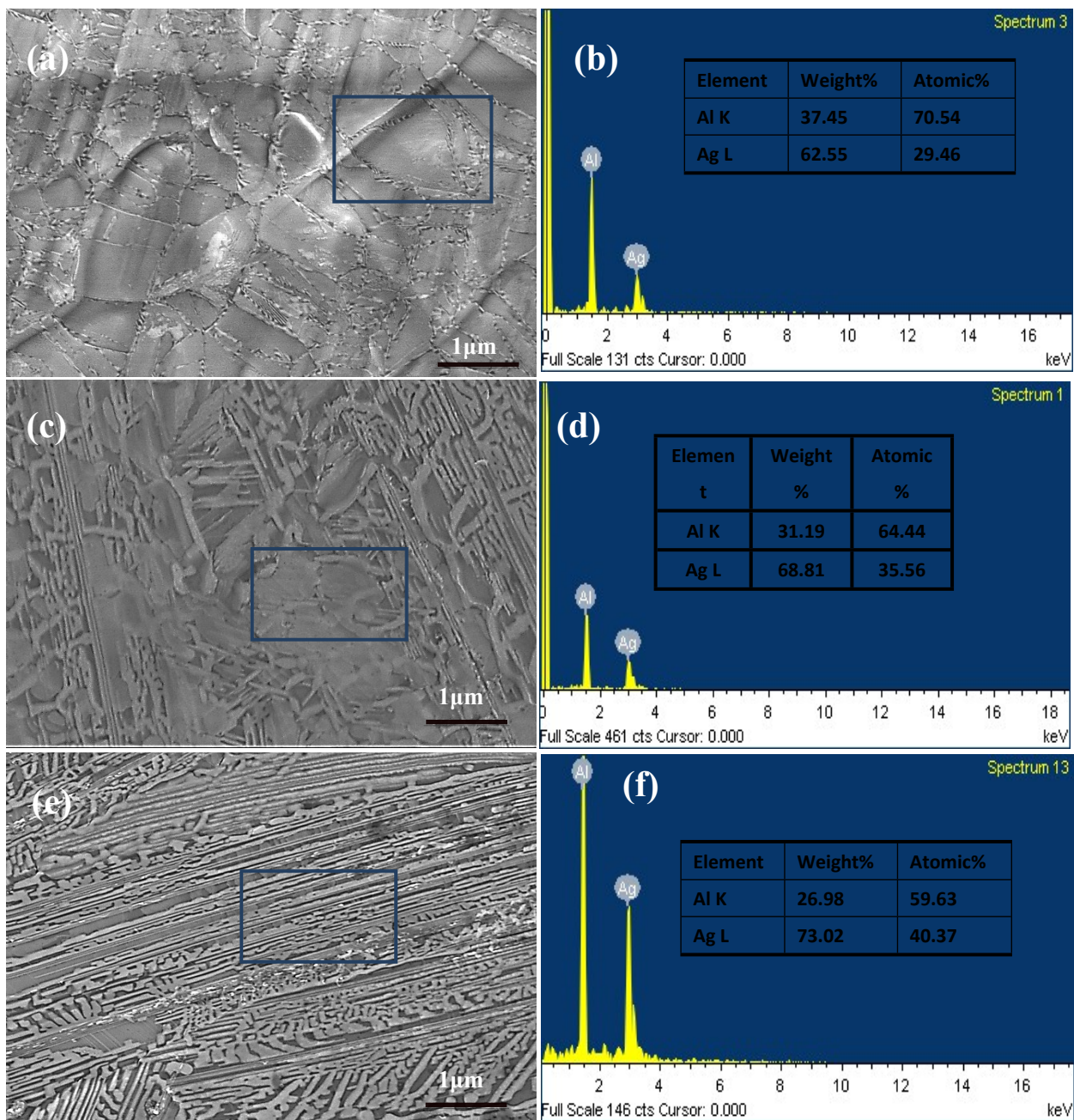


FIG. 2

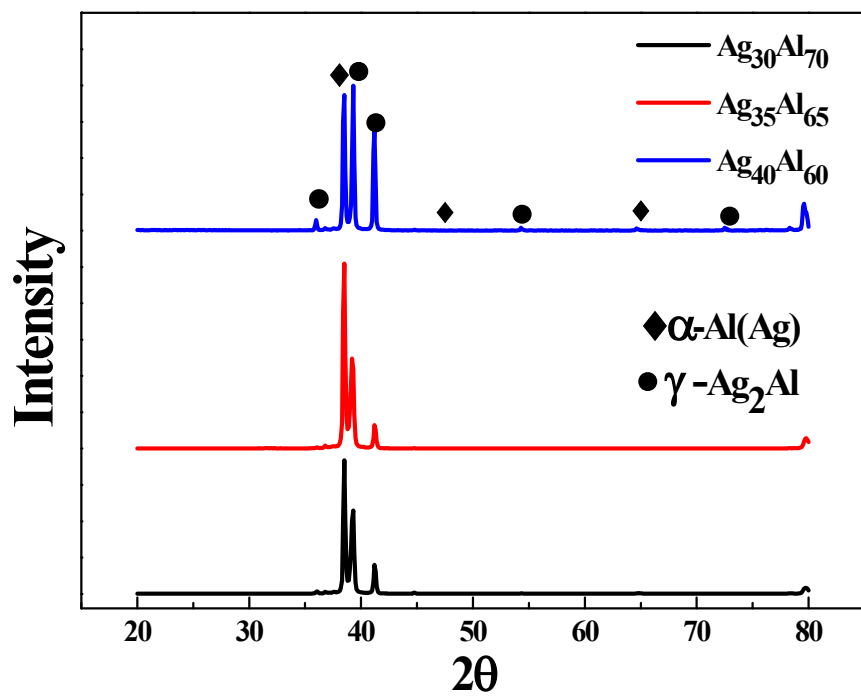


FIG. 3

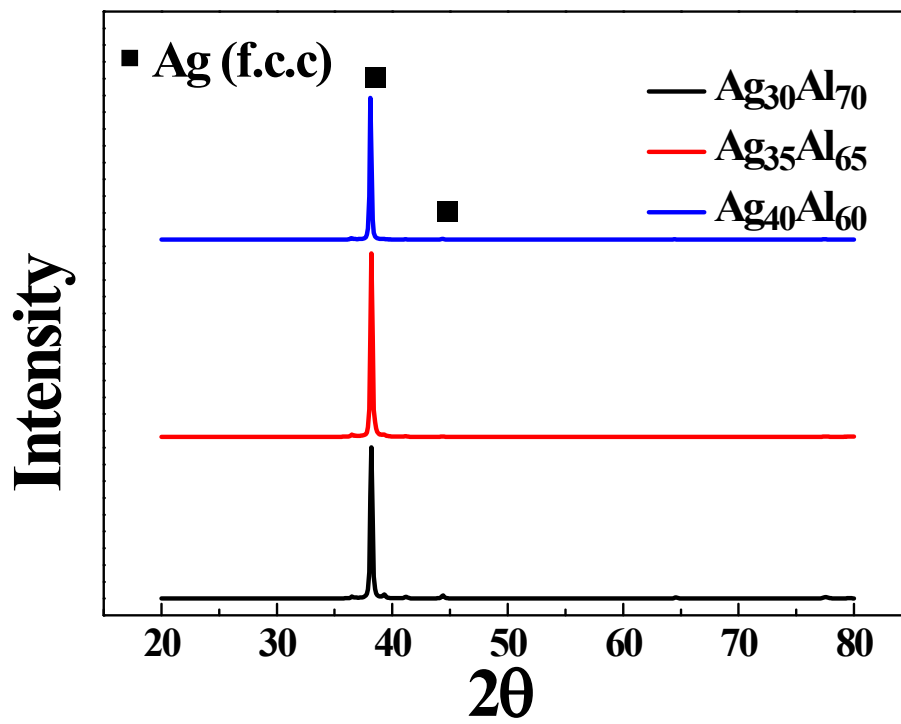


FIG. 4

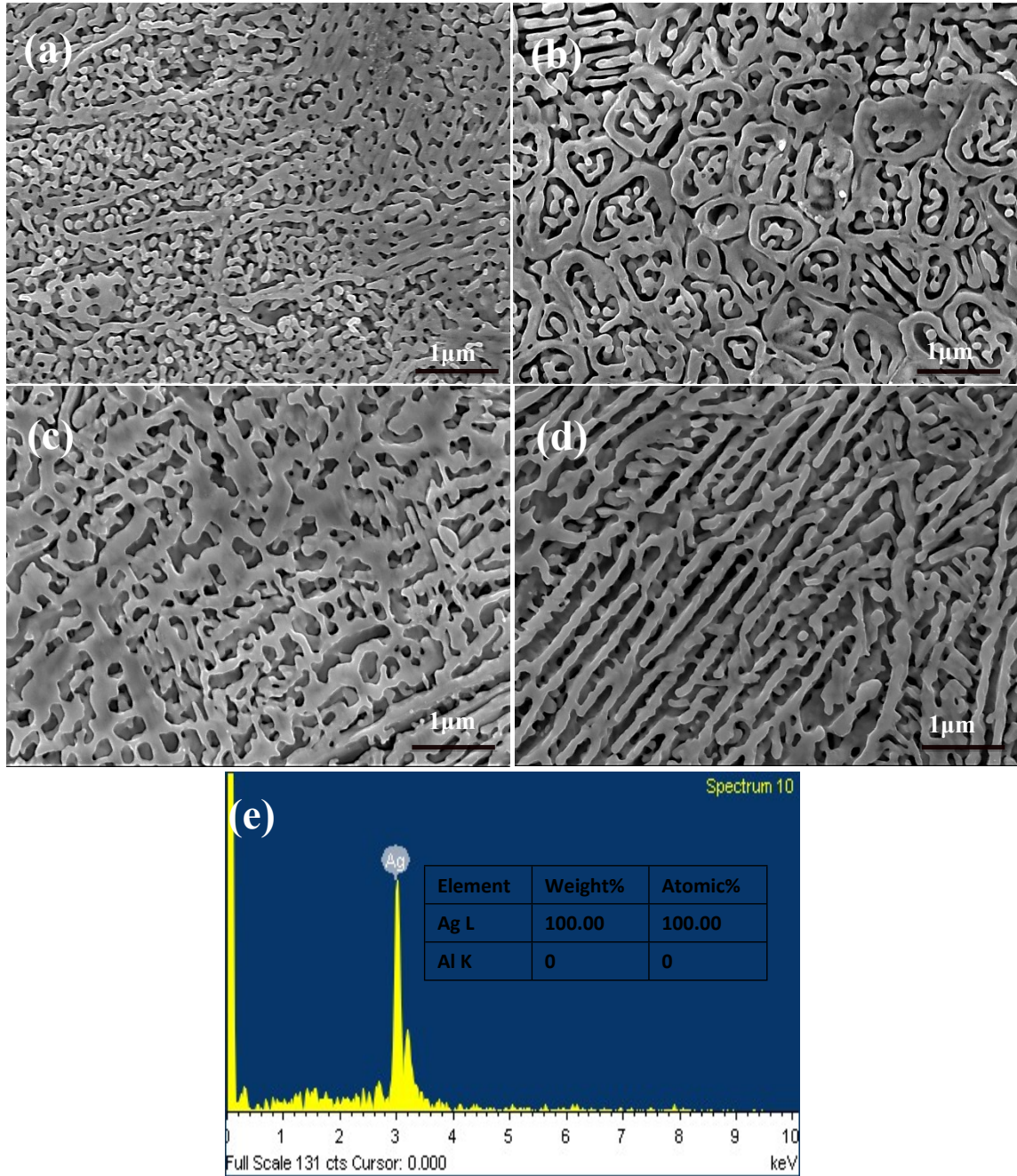


FIG. 5

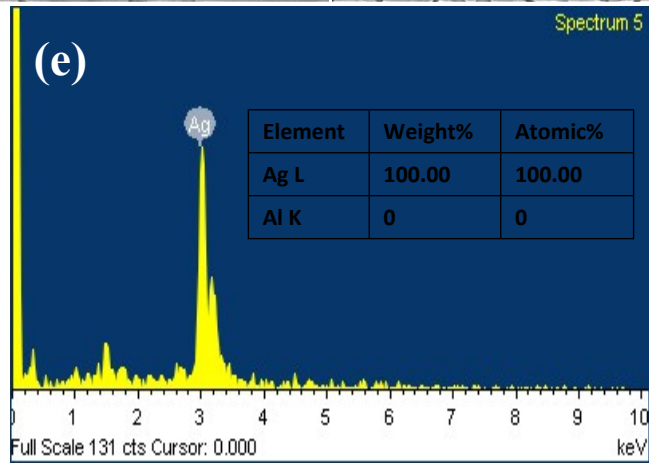
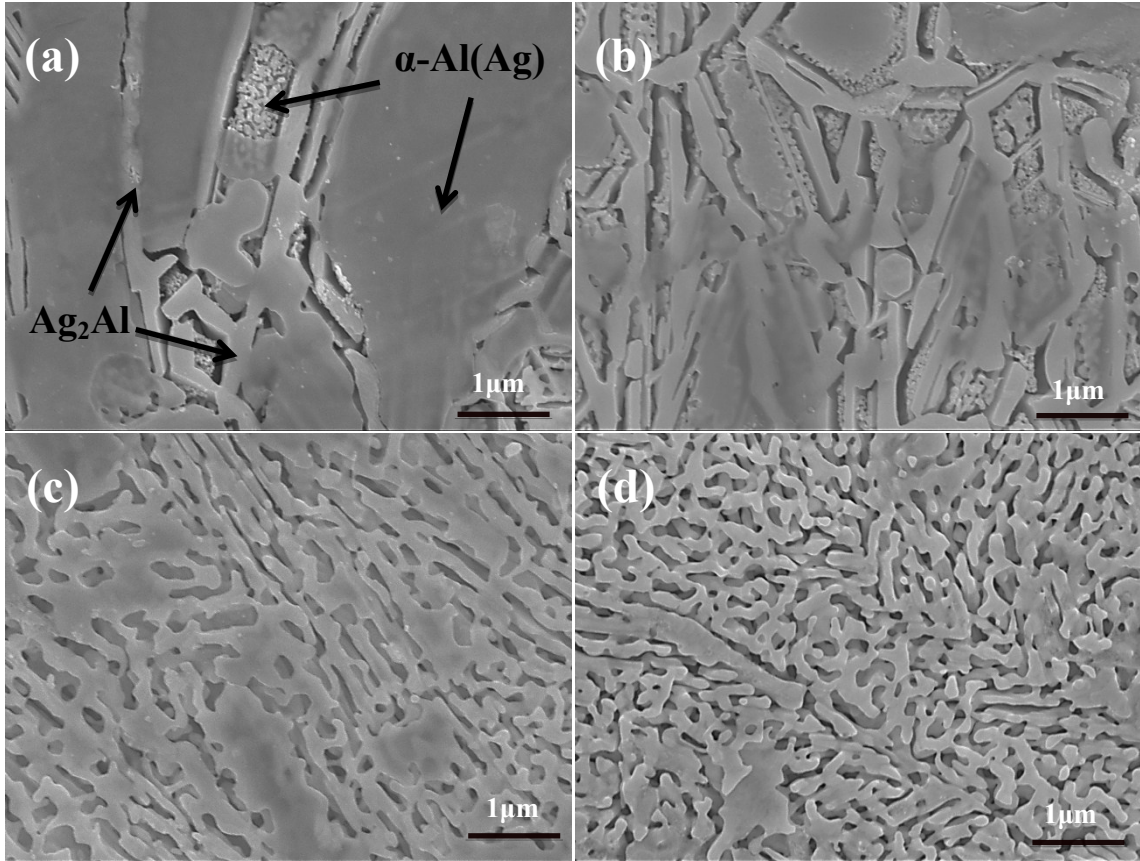


FIG. 6

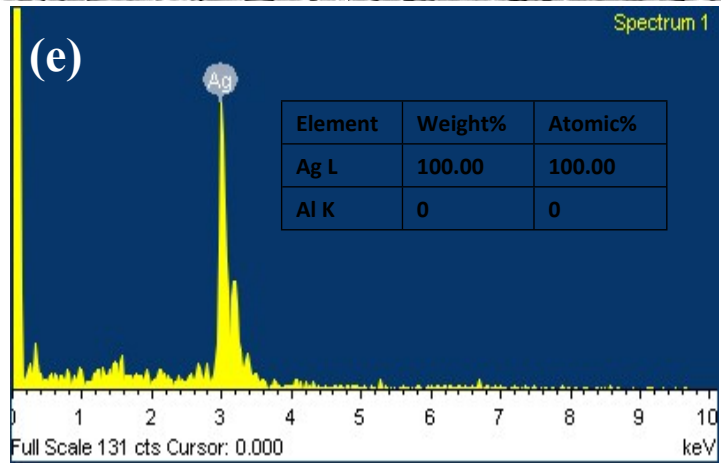
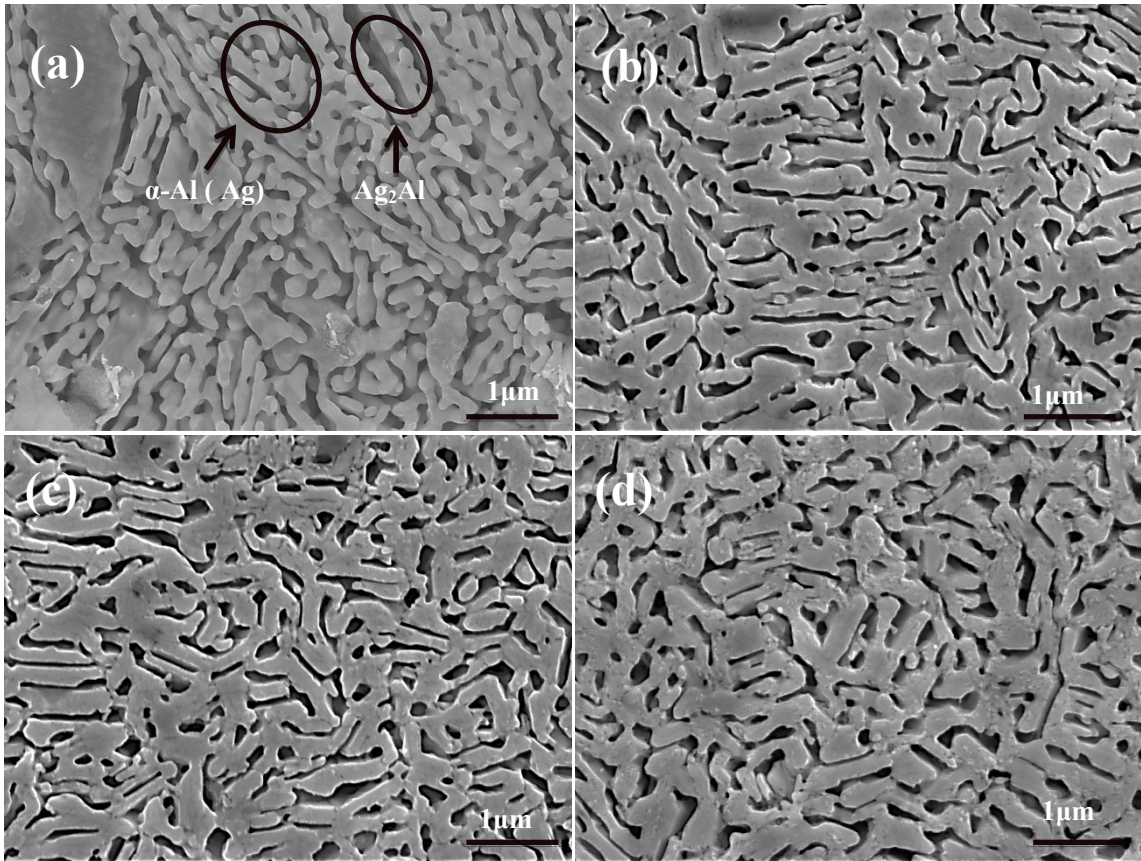


FIG. 7

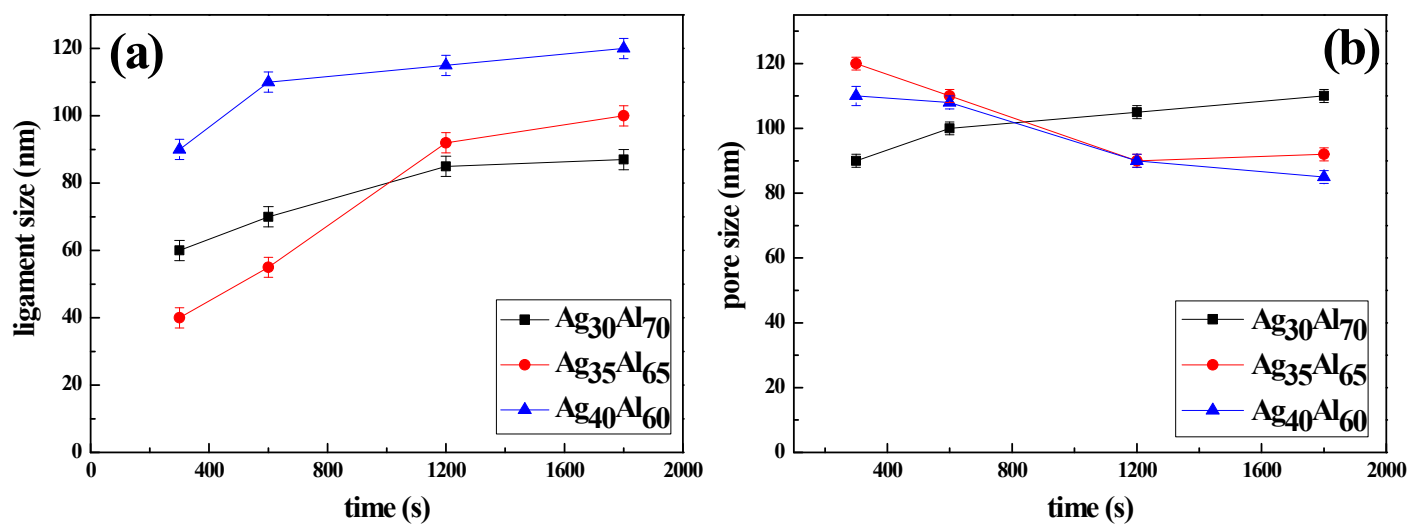


FIG. 8

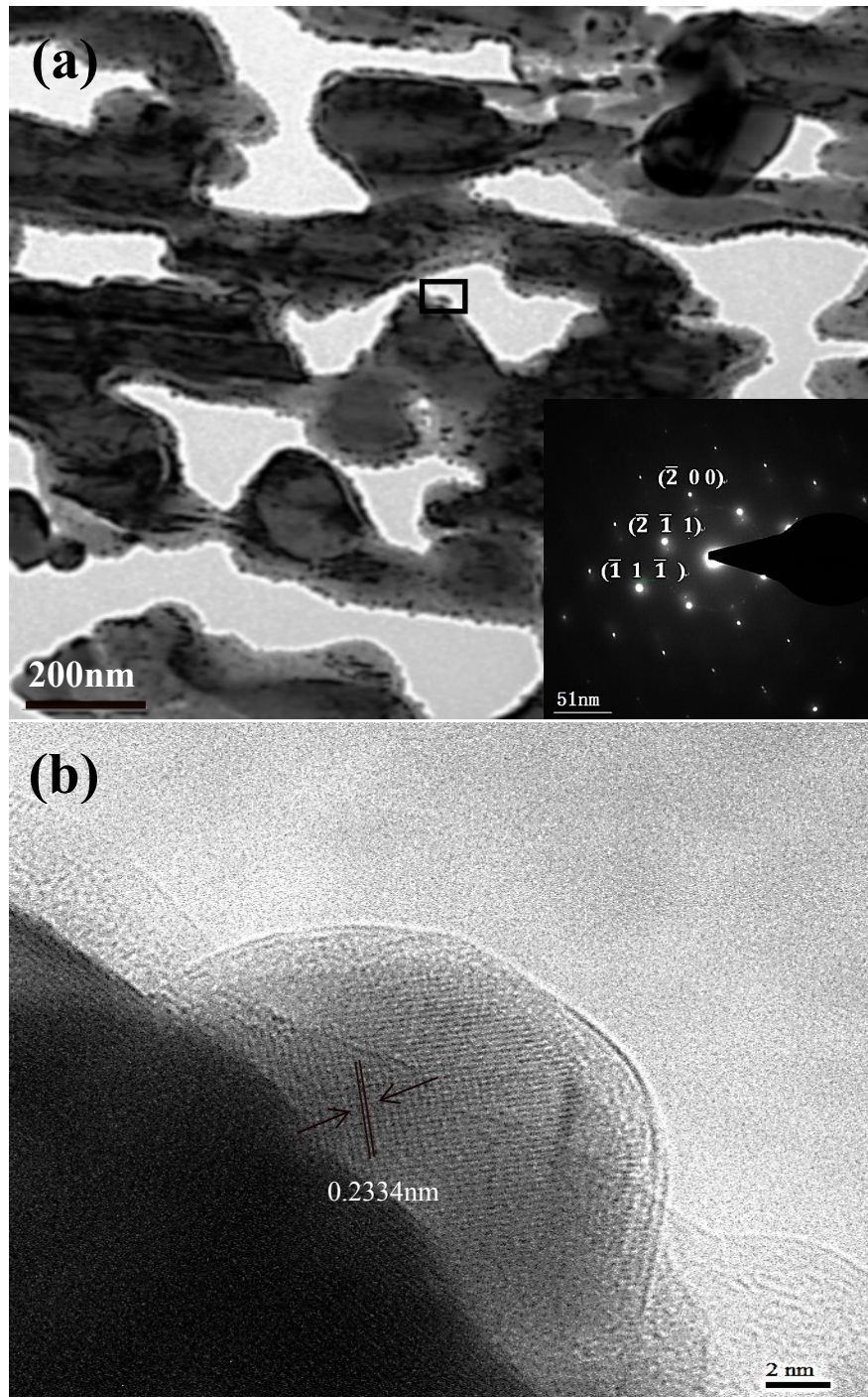


FIG. 9

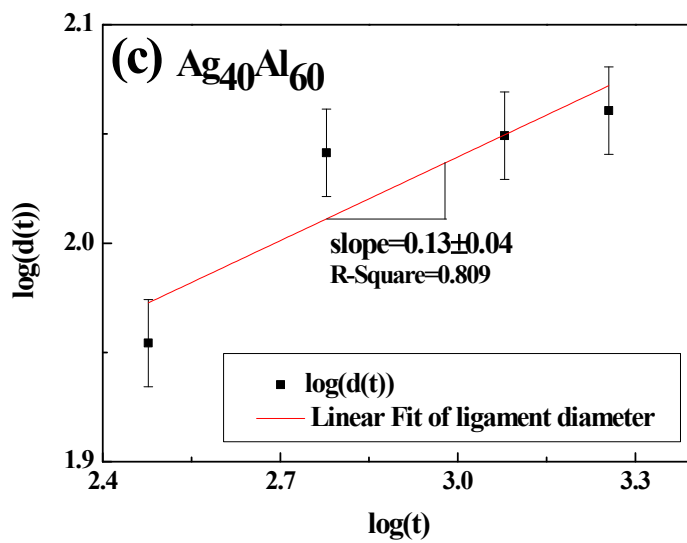
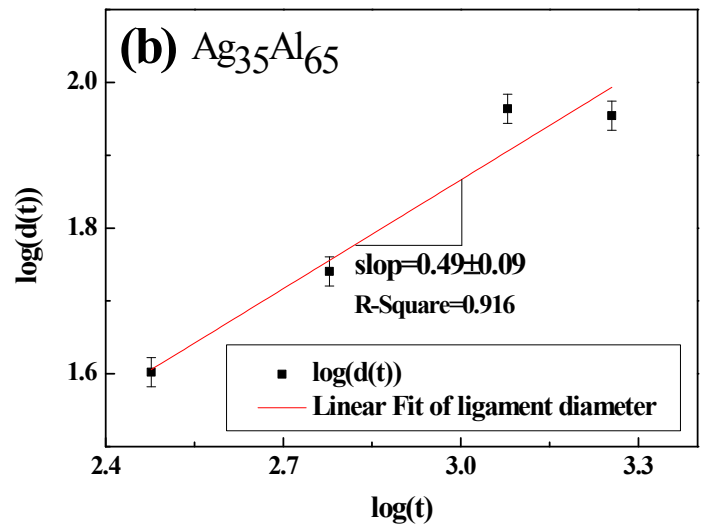
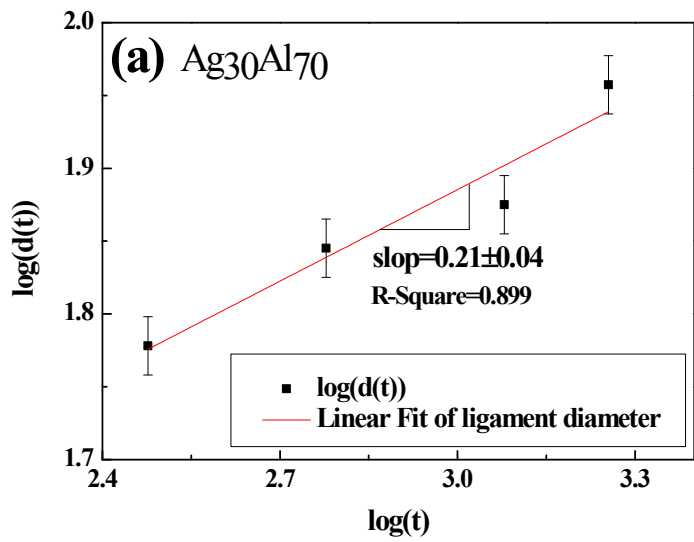


FIG. 10

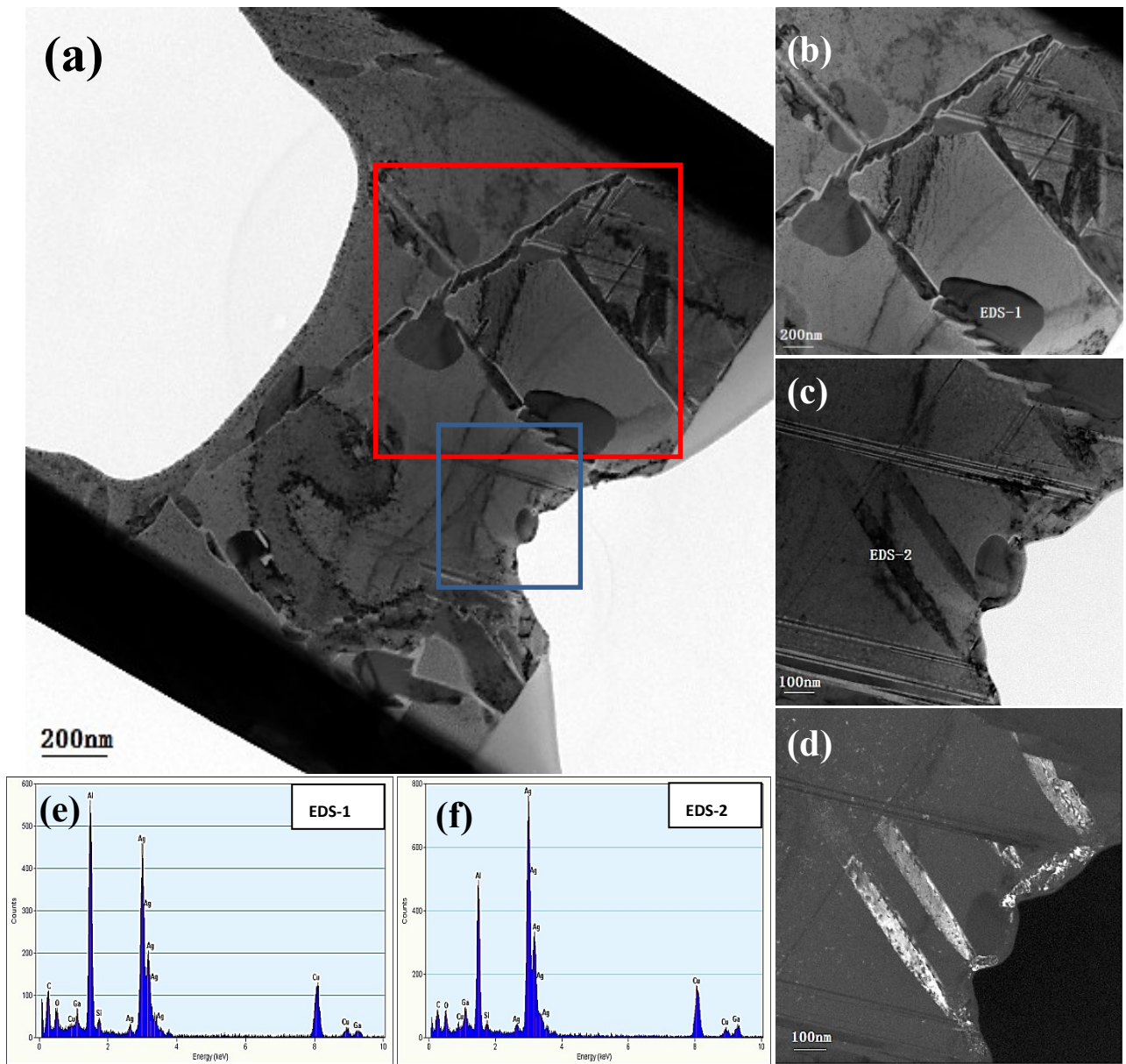


FIG. 11

