Readme

Supporting dataset to Electrodeposition of a functional solid state memory material – germanium antimony telluride from a non-aqueous plating bath

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Related Publication:

Kissling, G. P. et al. (2018). Electrodeposition of a functional solid state memory material - germanium antimony telluride from a non-aqueous plating bath. *Journal of the Electrochemical Society*

Main paper dataset

Figure	Files	description
Figure 1	Figure 1 a – c, SE:	raw data of cyclic voltammograms (.dat)
Figure 2	Figure 2 a-f, g-l, m-r, SE:	raw data of cyclic voltammograms (.dat)
Figure 3	Figure 3 a – r:	original SEM images (.TIF)
Figure 4	Figure 4 a,d, b,e, c,f, GST-225:	composition plot data including a reference point (.dat)
	Figure 4 raw EDX A-… – R-…:	raw EDX data. Three to nine raw EDX datasets per data point presented in the figure. (.emsa) > extension is ASCII encoded and can be opened in notepad, for example.
Figure 5	Figure 5 a – d, SE:	raw data of cyclic voltammograms (.dat)
	Figure 5 e – h:	original SEM images (.TIF)
	Figure 5 i, GST-225:	composition plot data including a reference point (.dat)
	Figure 5 raw EDX S x 1 – 10:	raw EDX data. One raw EDX dataset per data point presented in the figure. (.emsa) > extension is ASCII encoded and can be opened in notepad, for example.
Figure 6	Figure 6:	composition plot data (.dat)
	Figure 6 raw EDX W-…	raw EDX data. Nine raw EDX datasets per data point presented in the figure. (.emsa) > extension is ASCII encoded and can be opened in notepad, for example.
Figure 7	Figure 7samples:	XRD data of T-1.75V, U-1.75V, W-1.75V, X-1.75V, Y-1.75V, PVD standard (.dat)
	Figure 7Sb0,54Ge0,23Te0,23:	standard XRD peaks for Sb0.54 Ge0.23 Te0.23 (.dat)
	Figure 7(Sb1,25Ge0,75)Te3:	standard XRD peaks for (Sb1.25 Ge0.75) Te3 (.dat)
	Figure 7Te:	standard XRD peaks for Te (.dat)
	Figure 7TiN:	standard XRD peaks for TiN (.dat)
Figure 8	Figure8samples:	Fitted lattice parameters of T-1.75V, U-1.75V, W-1.75V, X-1.75V, Y-1.75V (.dat)
	Figure 8SbParams:	Reference lattice parameters for Sb (.dat)
	Figure 8SbTeParams:	Reference lattice parameters for SbTe compounds (.dat)

	Figure 8GeTeParams:	Reference lattice parameters for GeTe compounds (.dat)
	Figure 8GeSbTeParams:	Reference lattice parameters for GeSbTe compounds (.dat)
Figure 9	Figure 9samples:	XRD data of W-1.5V, W-1.75V, W-2V, PVD standard (.dat)
		Reference PVD pattern and reference line are identical to Figure 7.
Figure 10	Figure 10samples:	Figure10samples: Fitted lattice parameters of W-1.5V, W-1.75V, W-2V (.dat)
		Reference lattice parameters are identical to Figure 8.

Supporting information dataset

Figure	Files	Description
Figure S1,S2	Figure S1,S2 a:	peak currents (for S1 a) and peak potentials (for S2 a) as a function of the germanium precursor concentration (.dat)
	Figure S1,S2 b:	peak currents (for S1 b) and peak potentials (for S2 b) as a function of the antimony precursor concentration (.dat)
	Figure S1,S2 c:	peak currents (for S1 c) and peak potentials (for S2 c) as a function of the tellurium precursor concentration (.dat)
Figure S3	Figure S3 a − r:	original SEM images (.TIF)
Figure S4	Figure S4 a,d, b,e, c,f, GST-225:	composition plot data including a reference point (.dat)
	Figure S4 raw EDX A-thick,…: point	raw EDX data. Three to nine raw EDX datasets per data presented in the figure. (.emsa) > extension is ASCII encoded and can be opened in notepad, for example.
Figure S5	Figure S5a, b, …:	composition plot data (.dat)
	Figure S5 raw EDX …: point	raw EDX data. Three to nine raw EDX datasets per data presented in the figure. (.emsa) > extension is ASCII encoded and can be opened in notepad, for example.
Figure S6	Figure S6:	XRD refinement data for T -1.75V (.dat)
Figure S7	Figure S7:	XRD refinement data for U -1.75V (.dat)
Figure S8	Figure S8:	XRD refinement data for W -1.75V (.dat)
Figure S9	Figure S9:	XRD refinement data for Y -1.75V (.dat)
Figure S10	Figure S10:	XRD refinement data for X -1.75V (.dat)
Figure S11	Figure S11:	XRD refinement data for W -1.5V (.dat)
Figure S12	Figure S12:	XRD refinement data for W -2V (.dat)

Geographic location of data collection: University of Southampton, U.K.

Publisher: University of Southampton, U.K.

Readme version table

Original version	17th August 2018	
Updated	21st August 2018	Addition of information on supplementary figures (J Corsi) Incorporation into original readme (D Byatt)