Development of stretchable metallic glass electrodes

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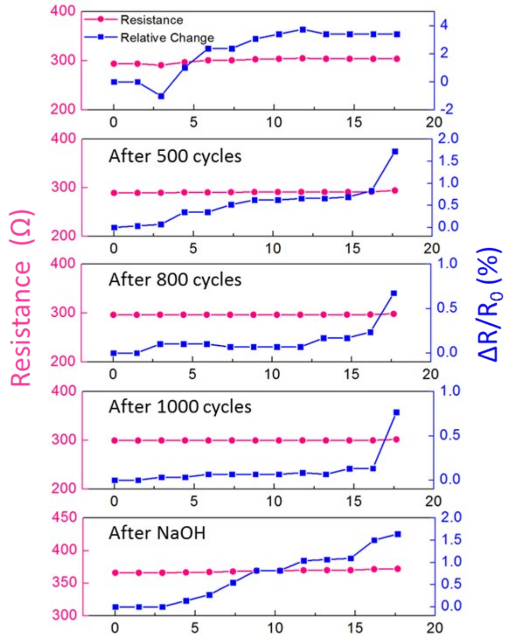

Figure S1 Change of electrical resistance with applied strain for biaxial MG-electrode after stretching-unstretching cycles and immersion in 1.5 mol/L NaOH solution for 24 hours.

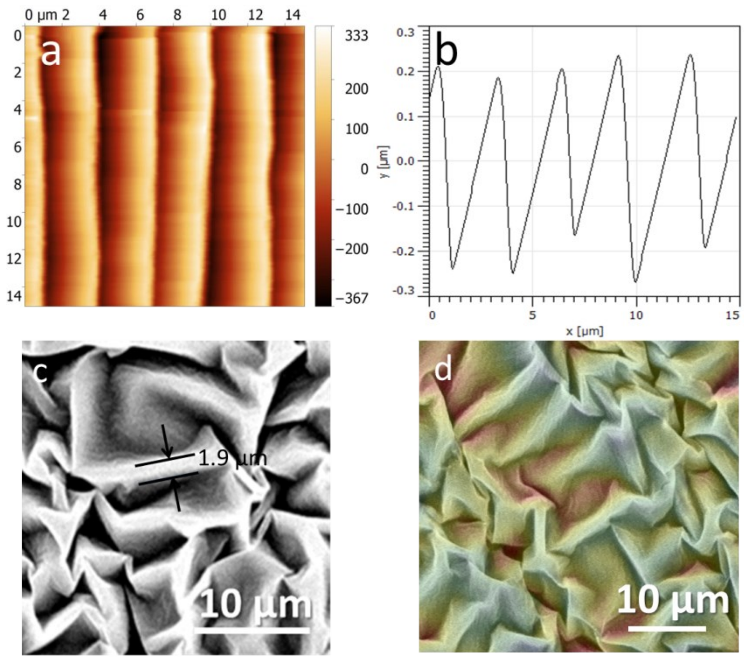

Figure S2 AFM image (a) and AFM cross-section profile (b) of the uniaxial MG-electrode with healing layer. SEM image (c) and reconstructed height map image (d) of the biaxial MG-electrode.

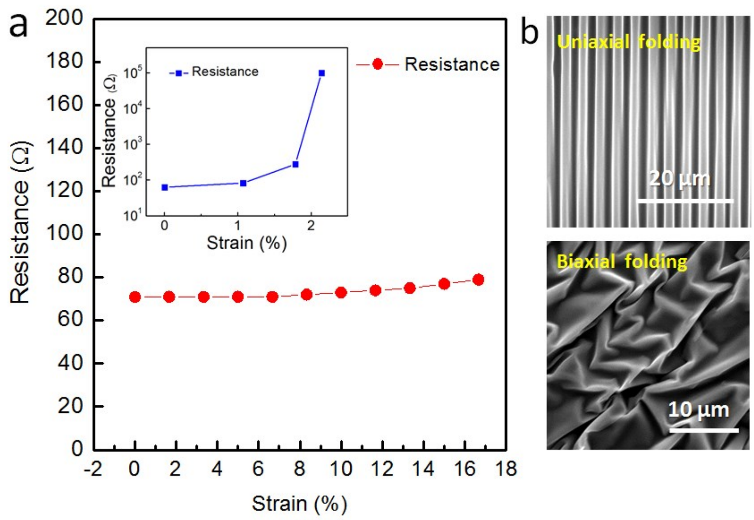

Figure S3 (a) Change of resistance with applied strain for $Pd_{81}Si_{19}$ flat MG film (inset) and $Pd_{81}Si_{19}$ MG-electrode achieved by biaxial folding. (b) SEM images of $Fe_{78}Si_9B_{13}$ metallic glass wrinkle structures achieved by uniaxial and biaxial folding.

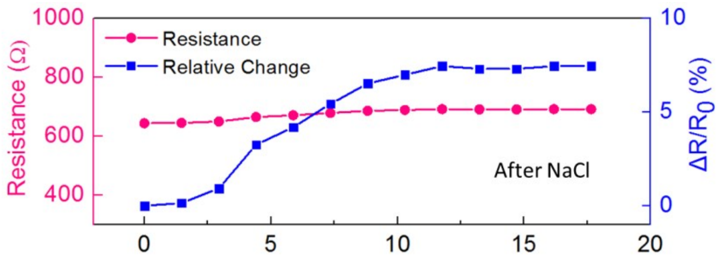

Figure S4 Electrical resistance change with stretching strain for biaxial MG-electrode after immersion in 1.5 mol/L NaOH solution for 24 hours.

Table S1 Summary of electronic performance of reported stretchable electrodes.

Conductive materials	Conductivity (S/cm)	Resistance change at 15% stretching strain (%)	Transparency (Yes/No)	Reference
Ag nanoparticles and graphene oxide	3012	115.1%	No	[1]
	2600	73.3%		
Ag nanoflowers	4000	344%	No	[2]
Ag nanowires	4018	14.5%	No	[3]
	1500	12%		
Ag salts	22000	275%	No	[4]
	7040	260%		
Ag flakes	542	10.5%	No	[5]
Ag-Au nanowires	38800	20.8%	No	[6]
	69400	27%		
	41850	16.4%		
Au nanoparticles	16000	128%	No	[7]
	170000	126%		
Au nanoparticles	11000	53.6%	No	[8]
	1800	189.3%		
Carbon nanotube and silver	5710	280.6%	No	[9]
Poly(3,4-ethylenedioxythio-phene) PEDOT	40	30%	No	[10]
PEDOT and graphene oxide	1010	670%	Yes	[11]
Carbon nanotube	0.83	1%	Yes	[12]
	1.08	0.5%	No	
Carbon nanotube	2000	12.5%	Yes	[13]
Carbon nanotube	1	5%	No	[14]
Carbon nanotube	10	3%	No	[15]
Poly(3-butylthiophene-2,5-diyl) P3BT	0.0022	2%	Yes	[16]
	0.0022	16%		
	4.002	Almost no change （0.001%）		
Carbon nanotube	342	2.55%	No	[17]
Graphene	1800	50%	Yes	[18]
Graphene foam	10	7.5%	Yes	[19]
Graphene	5000	8.1%	Yes	[20]
Ag nanoparticles	5400	6%	No	[21]
Graphene	16000	25%	Yes	[22]
Ag nanoparticles	4919	96.8%	No	[23]
	3727	101.7%		

Ag nanowires	46700	174.7%	No	[24]
	40000	100%		
Au-TiO_2 nanowires	16000	100%	No	[25]
Cu−Ag nanowires	1220	3.6%	No	[26]
Ag flakes	738	27.2%	No	[27]
Carbon nanotube	57	42.5%	No	[28]
poly(3,4-ethylenedioxythiophene) polystyrene sulfonate (PEDOT:PSS)	0.127	4%	No	[29]
Au nanosheets	1667	5.4%	No	[30]
	10000	30%		
	15385	30%		
Au nanomeshes	18868	6.9%	No	[31]
Uniaxial MG-Electrode	108	2.3%	Yes	This work
Biaxial MG-Electrode	1014	4.3%	No	This work

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