Supporting Information

Interpenetrating Poly(urethane-urea)-Polydimethylsiloxane Networks Designed as Active Elements in Electromechanical Transducers

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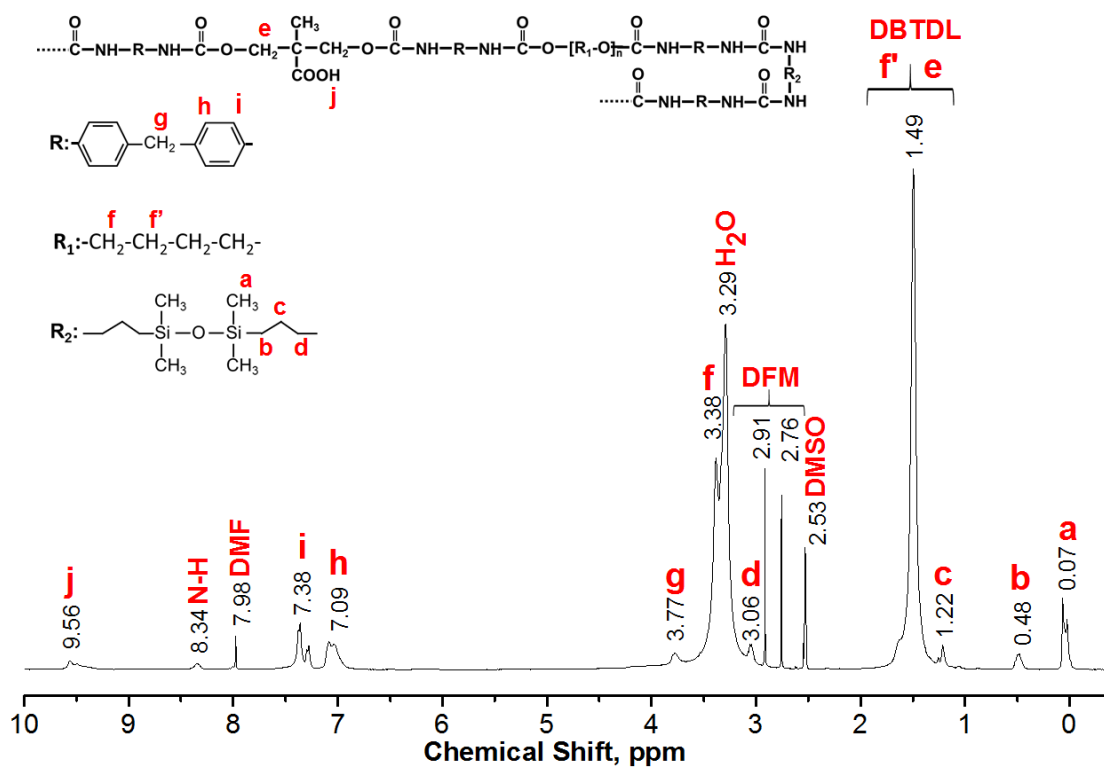
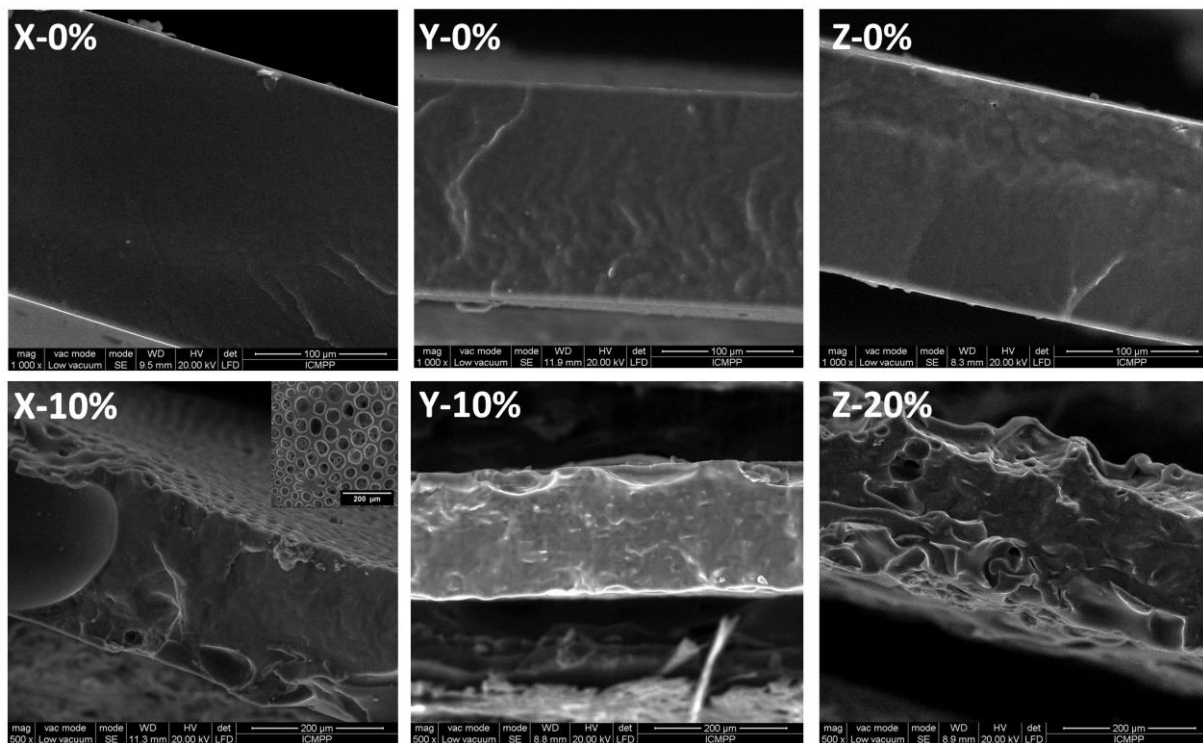**Figure S1.** ^{1}H NMR spectrum of poly(urethane-urea-siloxane), PUUS.
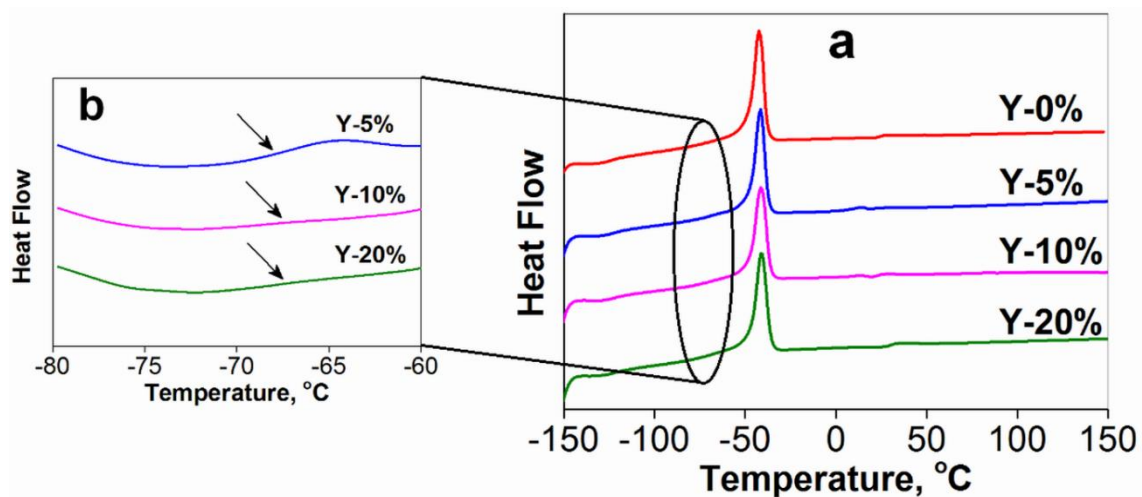
Figure S2. Cross-section SEM images.

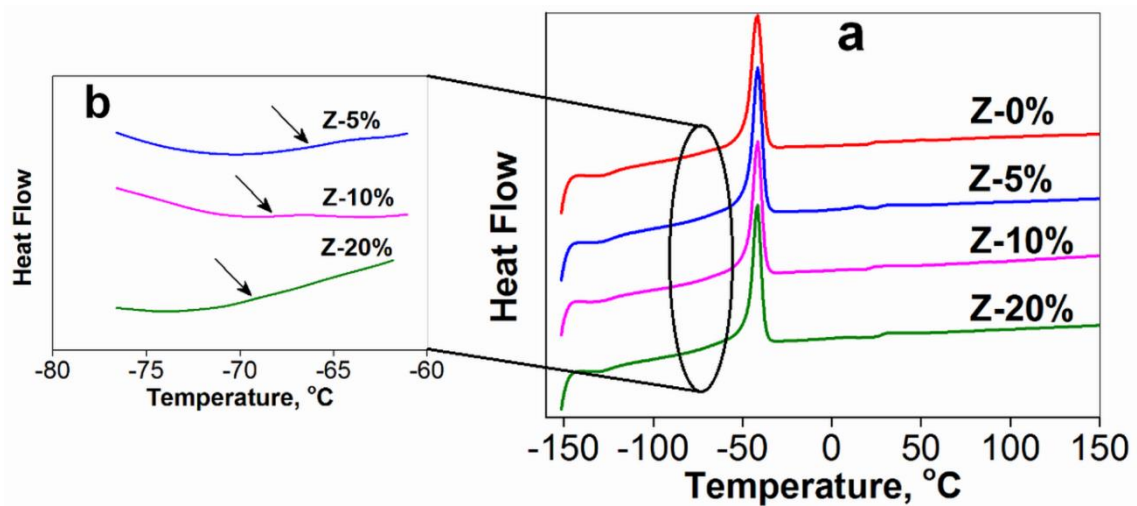**Figure S3.** DSC curves of series Y networks (a) and corresponding Tg domains zoom (b).

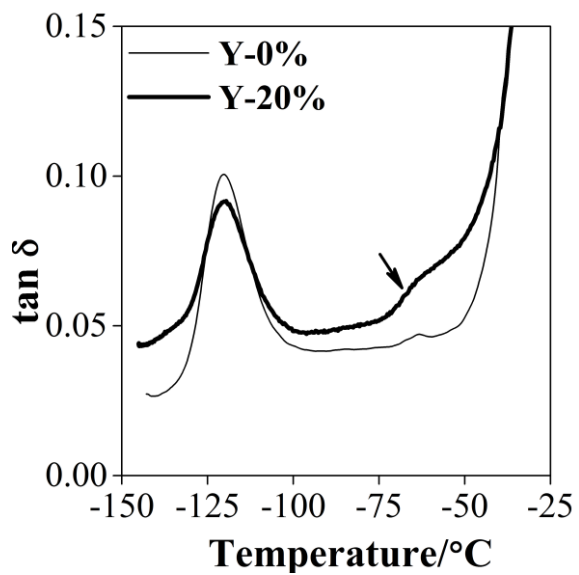**Figure S4.** DSC curves of series Z networks (a) and corresponding Tg domains zoom (b).

Figure S5. Temperature dependence of the loss factor for samples Y-0% and Y-20% at 1 Hz.
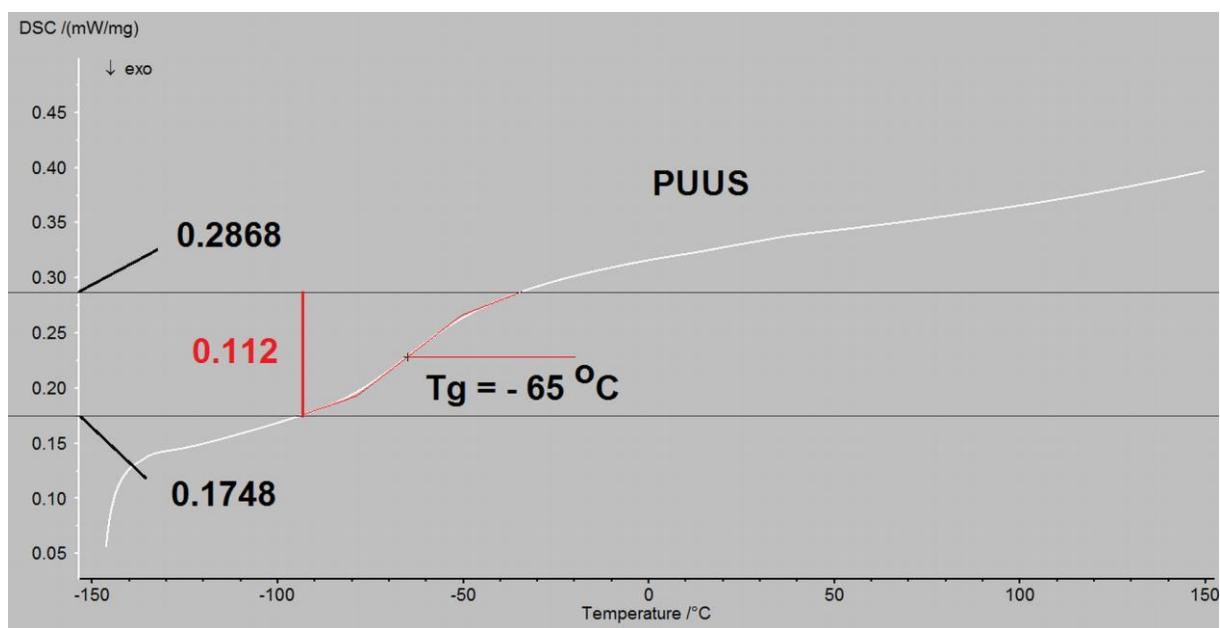

Figure S6. DSC curve of pure PUUS with zoomed Tg domain on heat flow axis.

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Table 1S. The parameters estimated on the basis of water vapor sorption-desorption isotherms

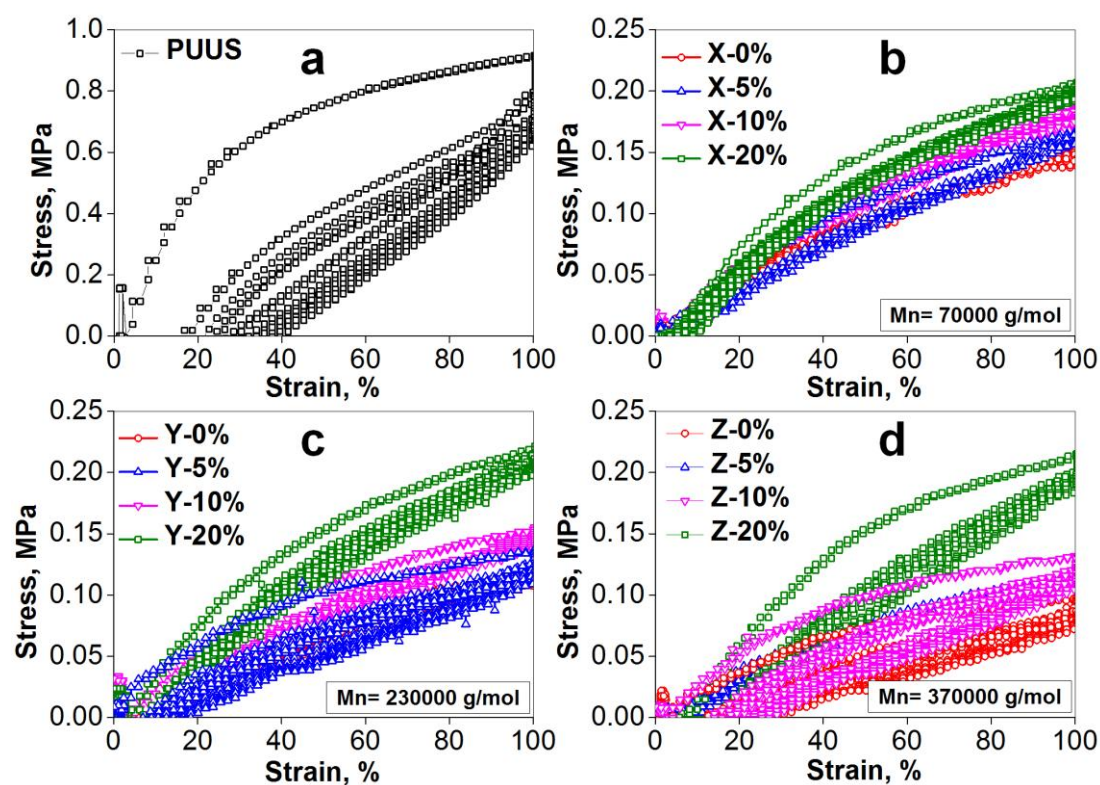| Sample	Sorption Capacity, wt% d.b.[a]
PUUS	2.88
Y-0%	0.65
Y-5%	0.76
Y-10%	0.89
Y-20%	1.29

[a]dry basis

Figure S7. Cyclic stress-strain curves at 100% strain for: a- simple PUUS; b, c, d – the three IPN series.
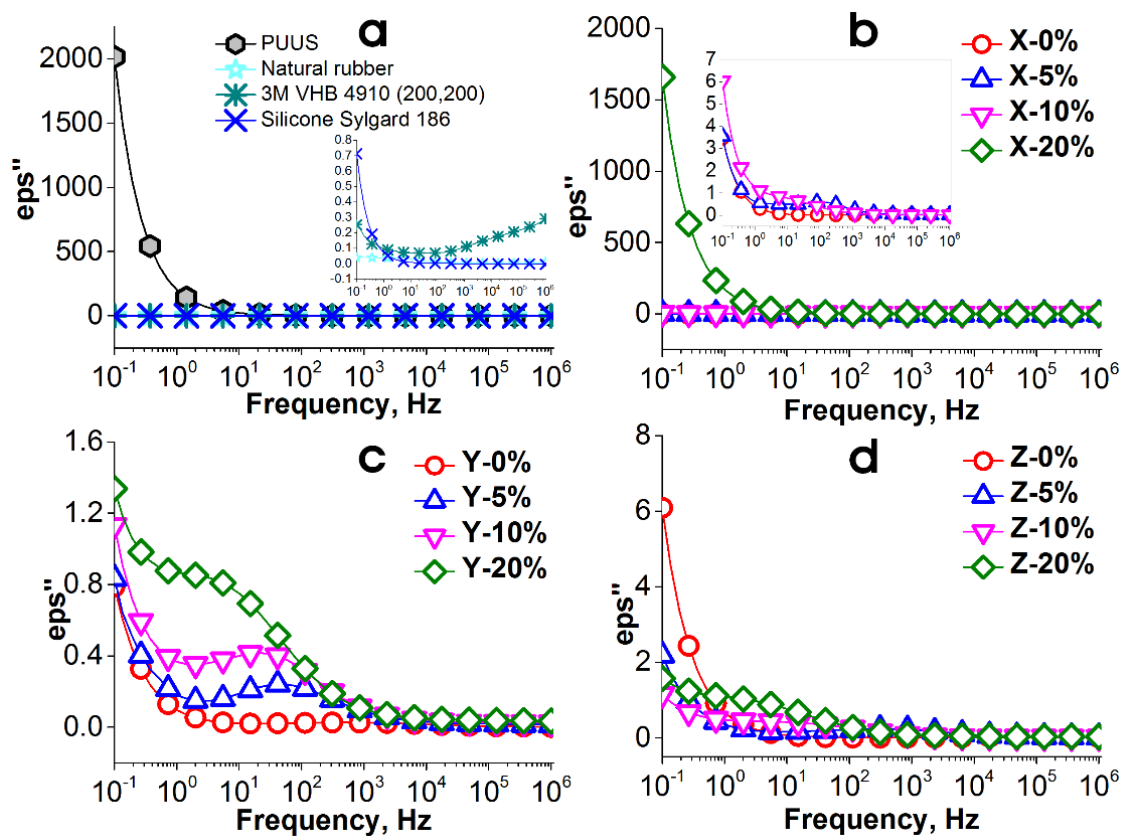
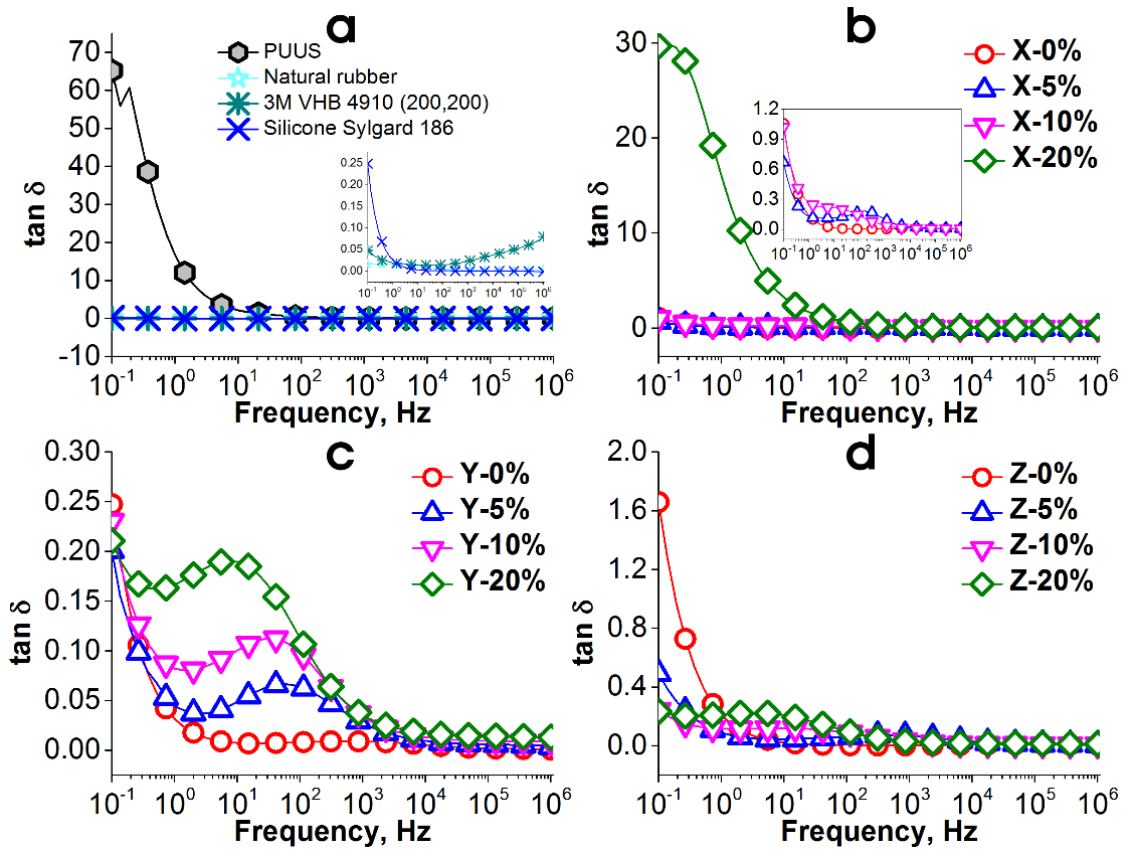**Figure S8.** Dielectric loss in dependence on frequency.

Figure S9. The dependence of tan δ (tanδ=eps″/eps′) on the frequency.