Electronic Supplementary Material (ESI) for Soft Matter.

Supporting Information

Charge transport in electrospinning of polyelectrolyte solutions

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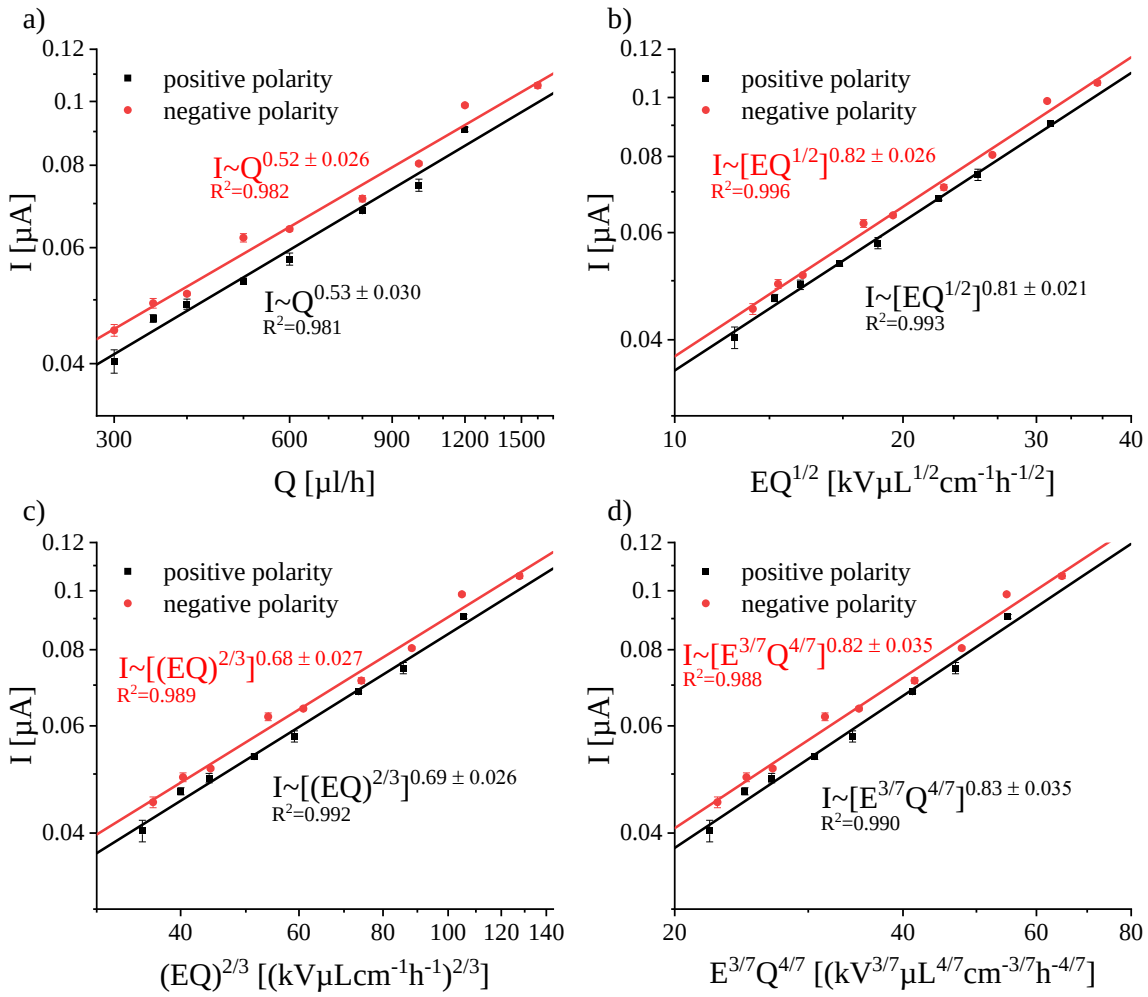

Fig. S1: Emitted current during electrospinning of neutral PVP in water/ethanol (6/4 v/v): a) depending on Q; b) as a function of $EQ^{1/2}$; c) as a function of $(EQ)^{2/3}$ (viscosity-dominated jet); d) as a function of $E^{3/7}Q^{4/7}$ (capillary-dominated jet). Error bars are based on standard deviation.

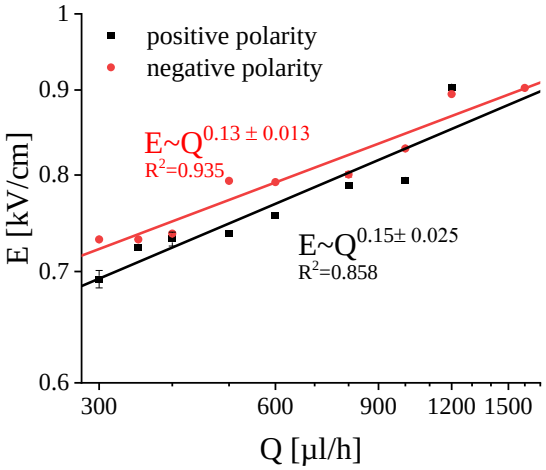

Fig. S2: Applied electric field as a function of Q for a stable cone-jet electrospinning process of neutral PVP in water/ethanol (6/4 v/v). Error bars are based on standard deviation.

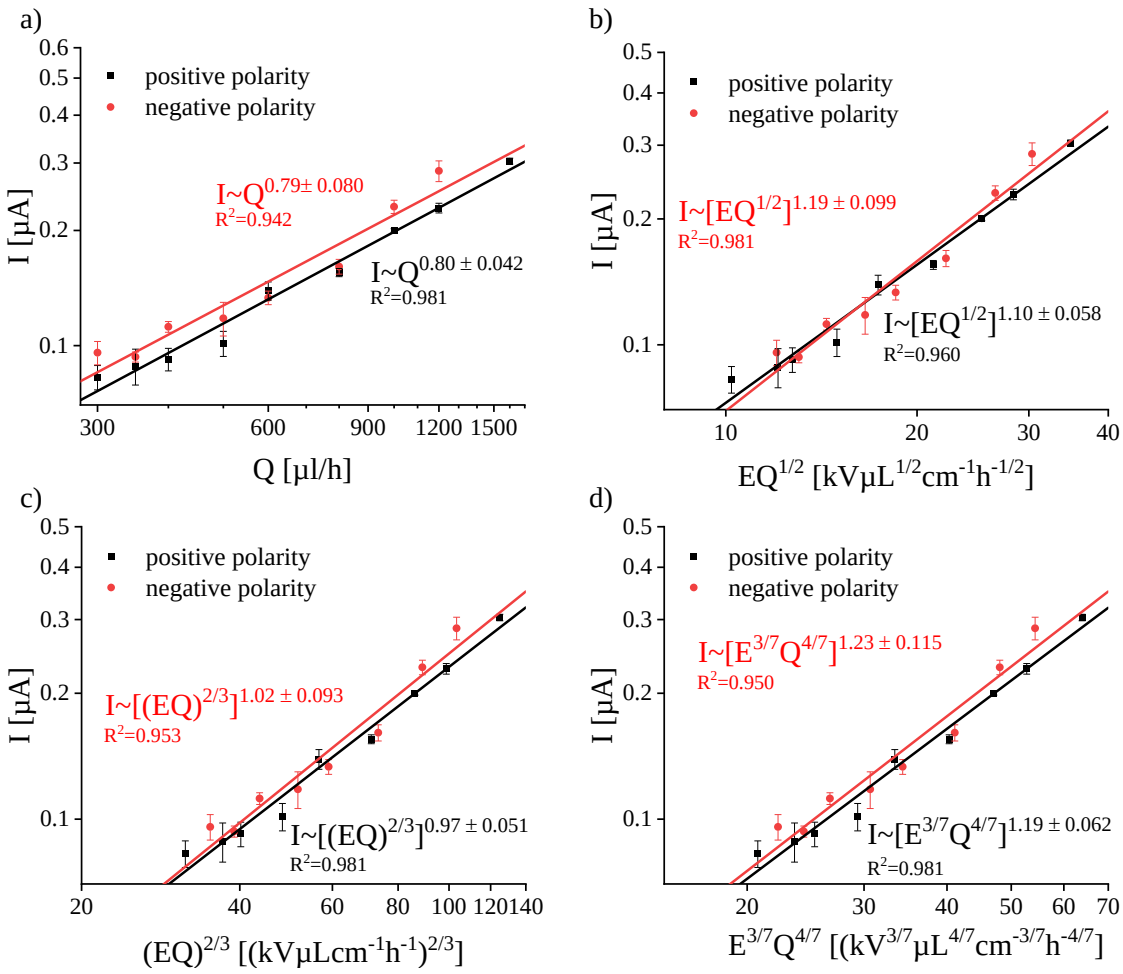

Fig. S3: Emitted current during electrospinning of uncharged PAA at pH 2.8 in water/ethanol (6/4 v/v): a) depending on Q; b) as a function of $EQ^{1/2}$; c) as a function of $(EQ)^{2/3}$ (viscosity-dominated jet); d) as a function of $E^{3/7}Q^{4/7}$ (capillary-dominated jet). Error bars are based on standard deviation.

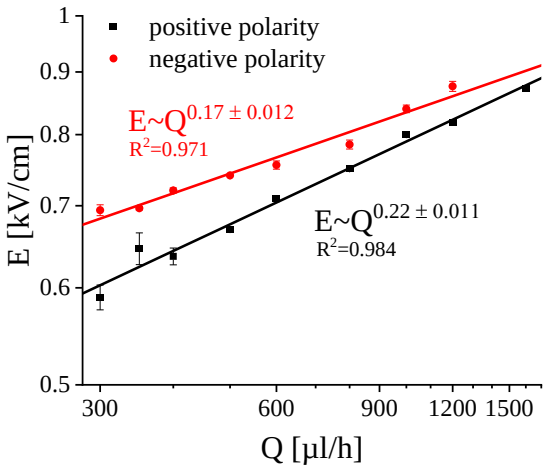

Fig. S4: Applied electric field as a function of Q for a stable cone-jet electrospinning process of uncharged PAA at pH 2.8 in water/ethanol (6/4 v/v). Error bars are based on standard deviation.

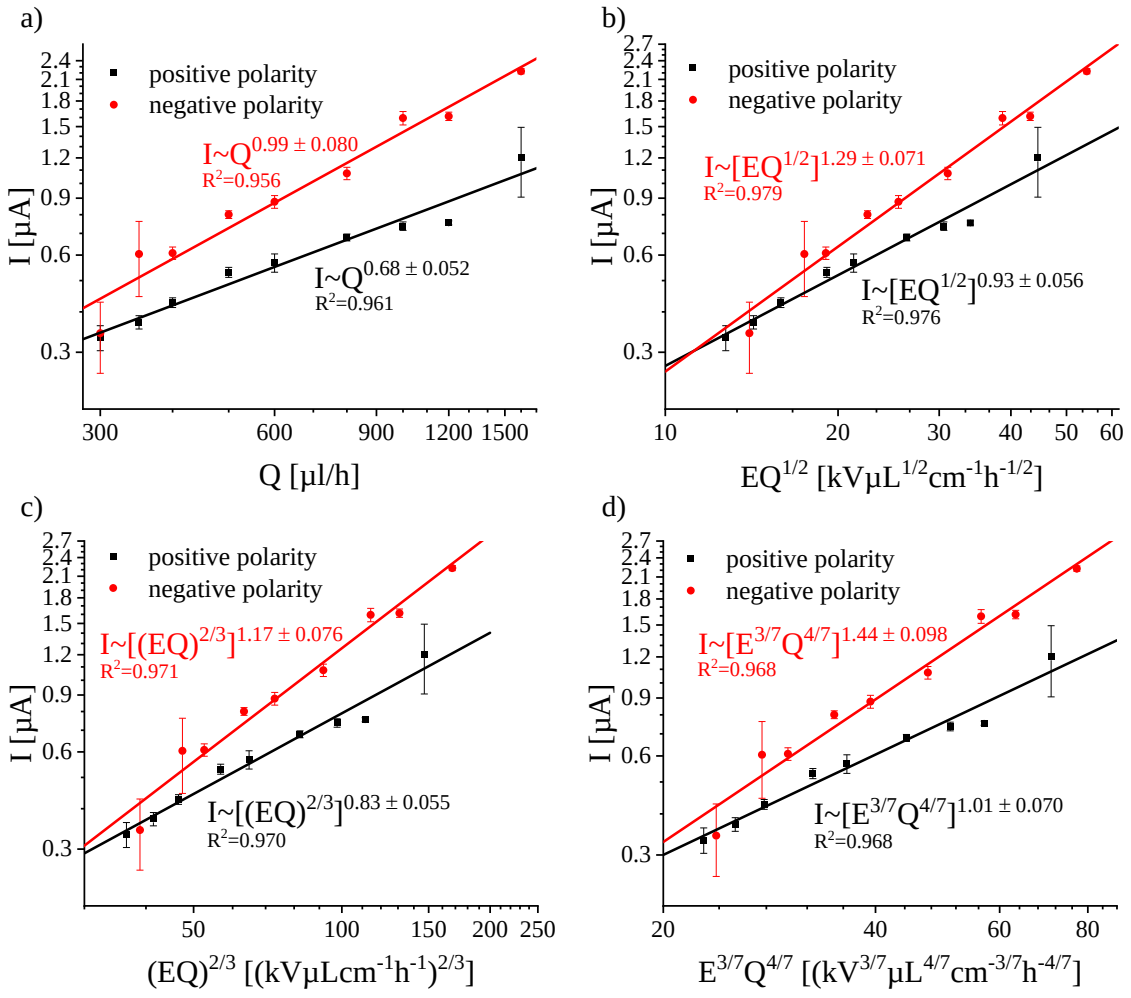

Fig. S5: Emitted current during electrospinning of charged PAA at pH 4.5 in water/ethanol (6/4 v/v): a) depending on Q; b) as a function of $EQ^{1/2}$; c) as a function of $(EQ)^{2/3}$ (viscosity-dominated jet); d) as a function of $E^{3/7}Q^{4/7}$ (capillary-dominated jet). Error bars are based on standard deviation.

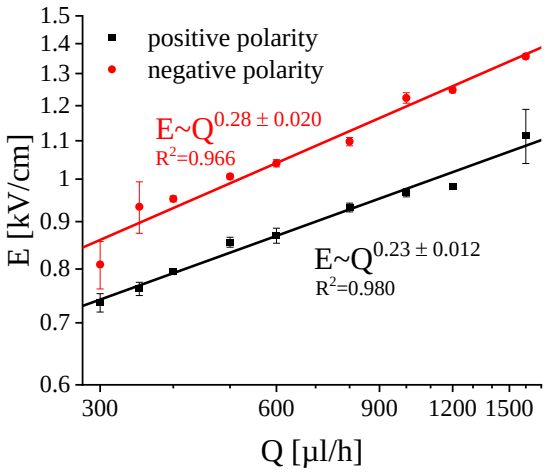

Fig. S6: Applied electric field as a function of Q for a stable cone-jet electrospinning process of charged PAA at pH 4.5 in water/ethanol (6/4 v/v). Error bars are based on standard deviation.