-Supporting Info-

Processing of PVDF-based Electroactive/Ferroelectric Films: Importance of PMMA and Cooling Rate From the Melt State on the Crystallization of PVDF Beta-Crystals

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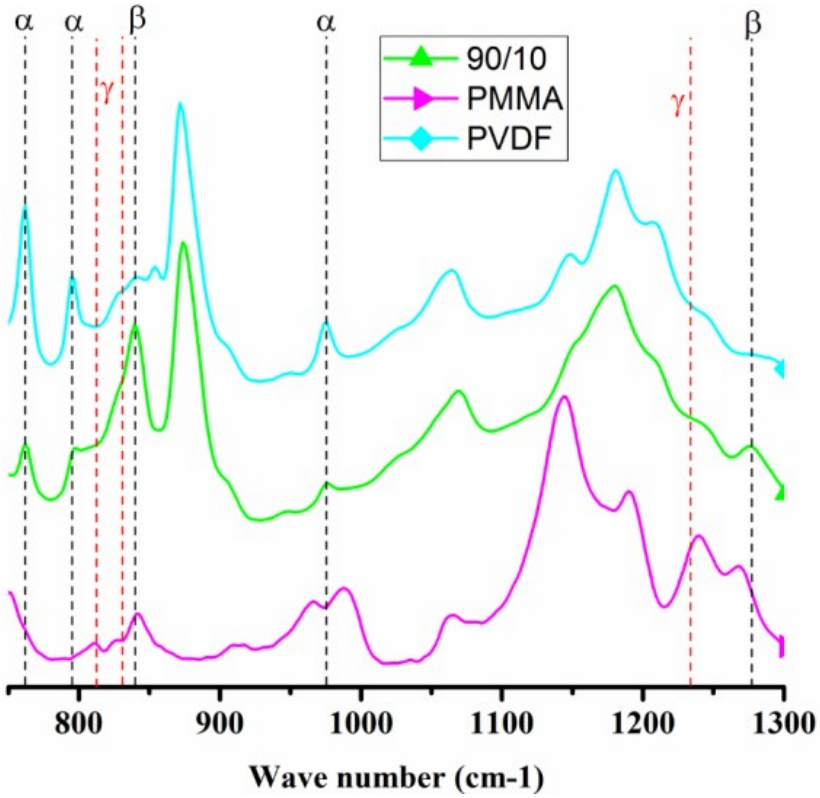
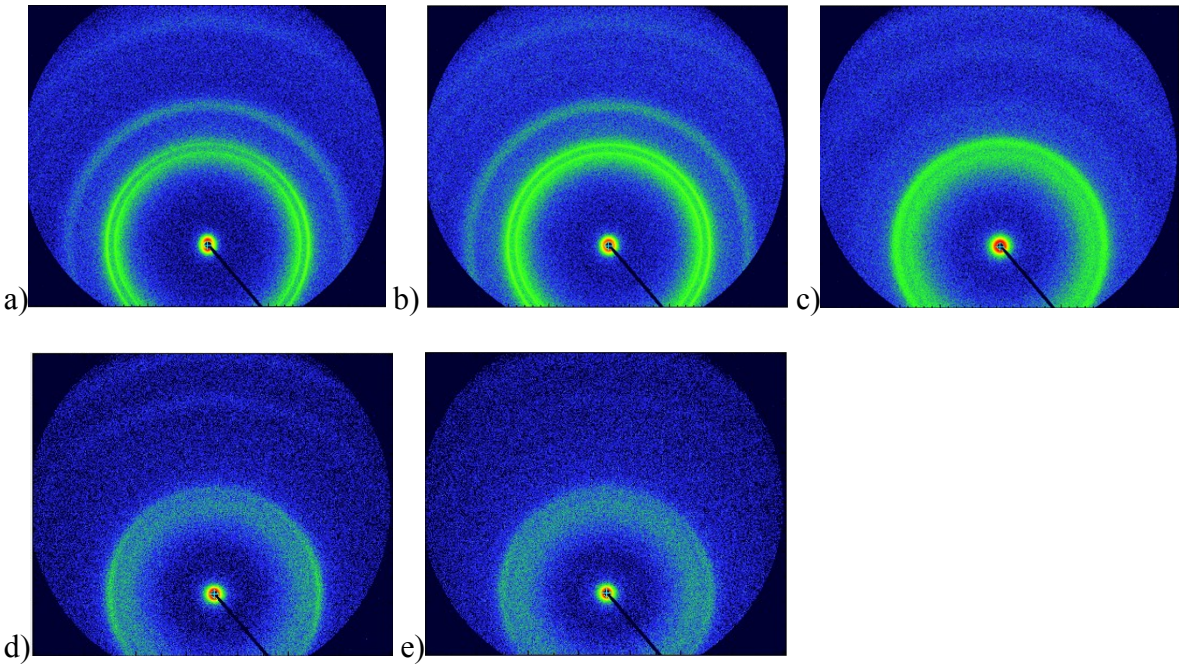
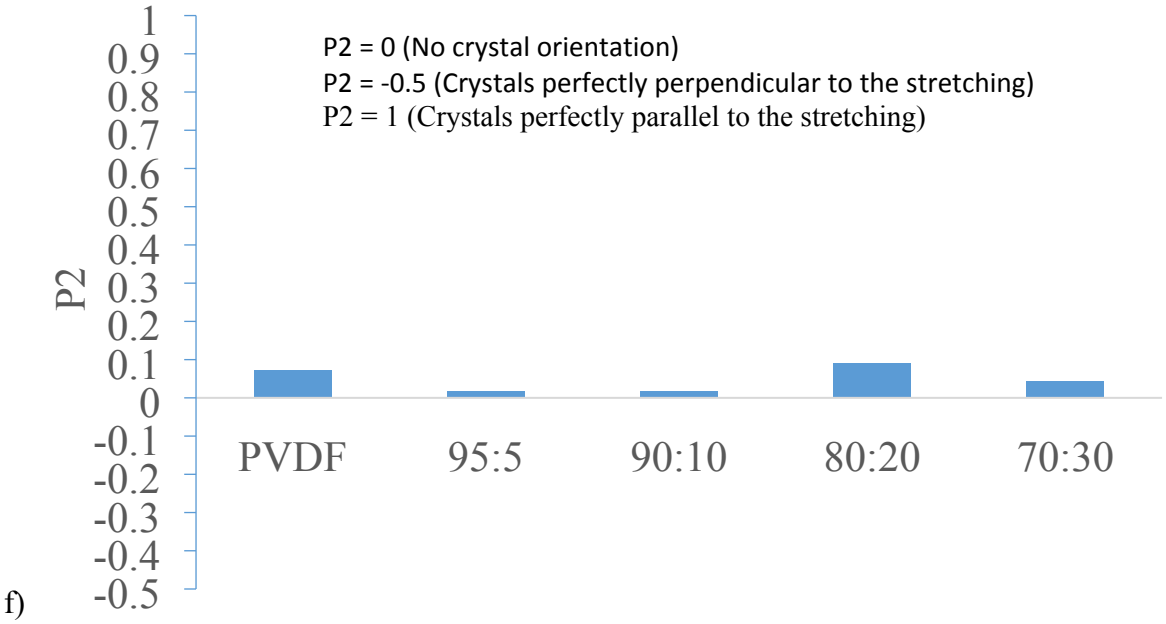


Supporting Info Figure S02: ATR-FTIR of a PVDF/PMMA (90:10) film processed by extrusion-calendering over the entire wavenumber range.

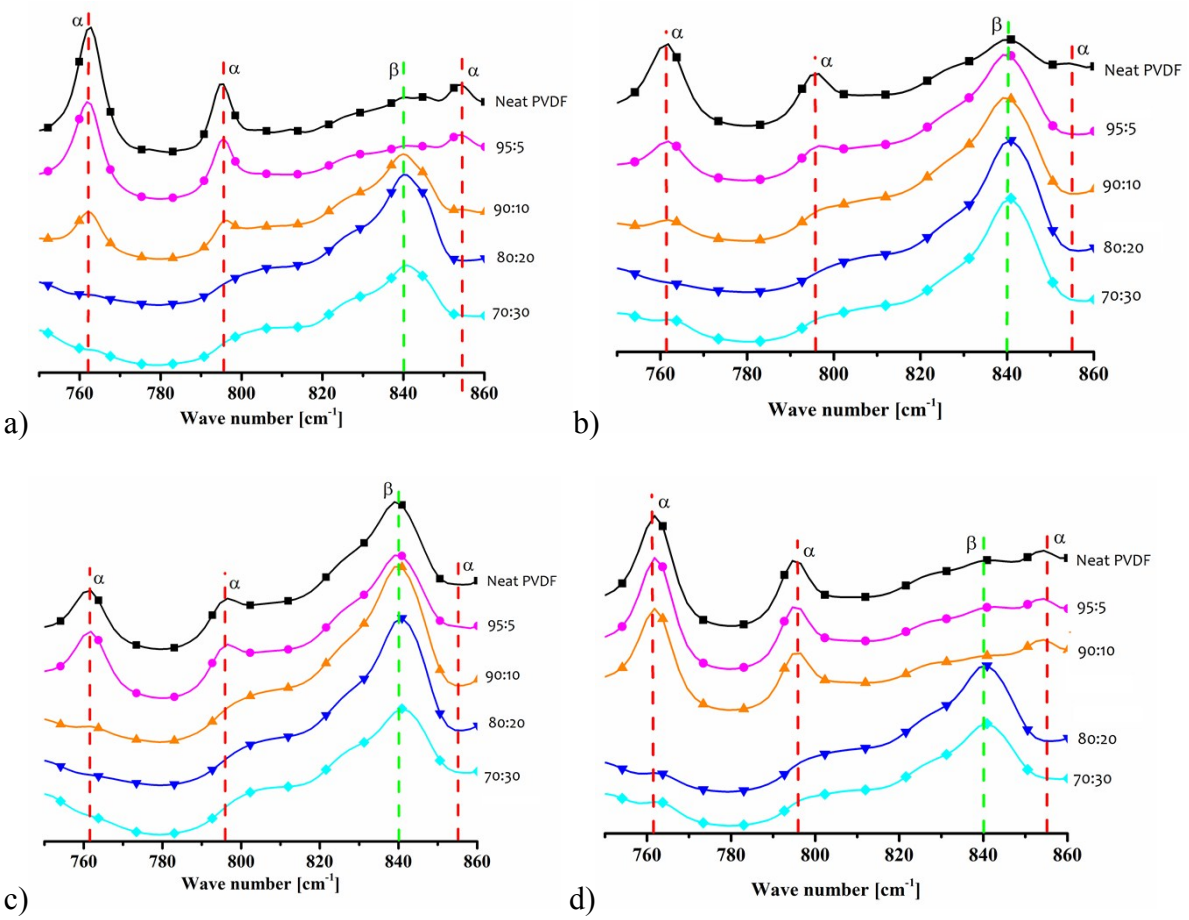




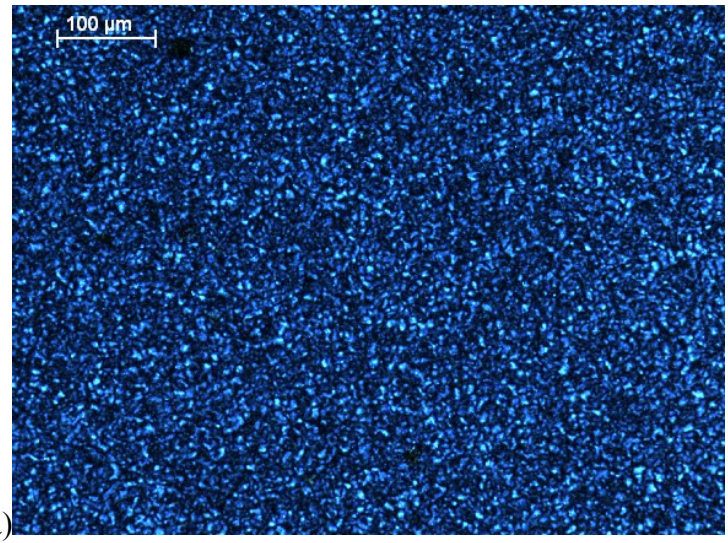
Supporting Info Figure S02: WAXS analysis of neat PVDF (a), PVDF/PMMA 95:5 (b), PVDF/PMMA 90:10 (c), PVDF/PMMA 80:20 (d) and PVDF/PMMA 70:30 (e). Evolution of the orientation factor P_2 as a function of PMMA weight content (f).

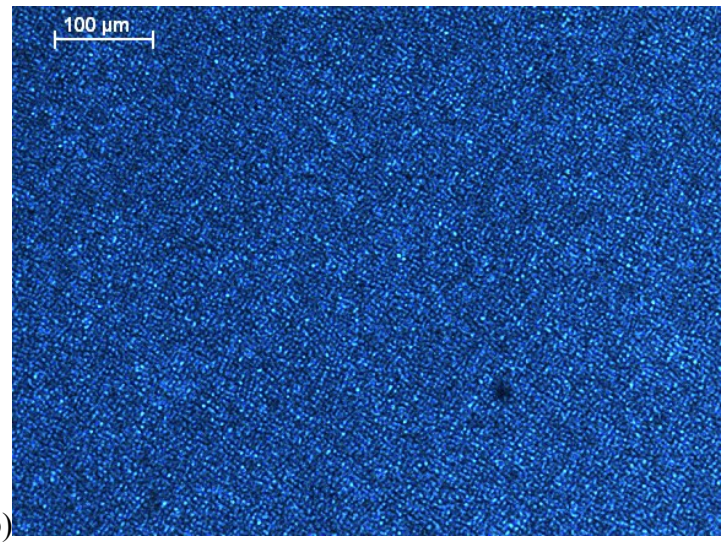
Supporting Info Table S01: Shape modifications of PVDF/PMMA films processed by extrusion-calendering after reheating at 100°C for 2 hours.

Sample	*Initial length (cm)*	*Final length (cm)*
100:00	20.5	20.6
95:05	19	19.15
90:10	13.6	13.8

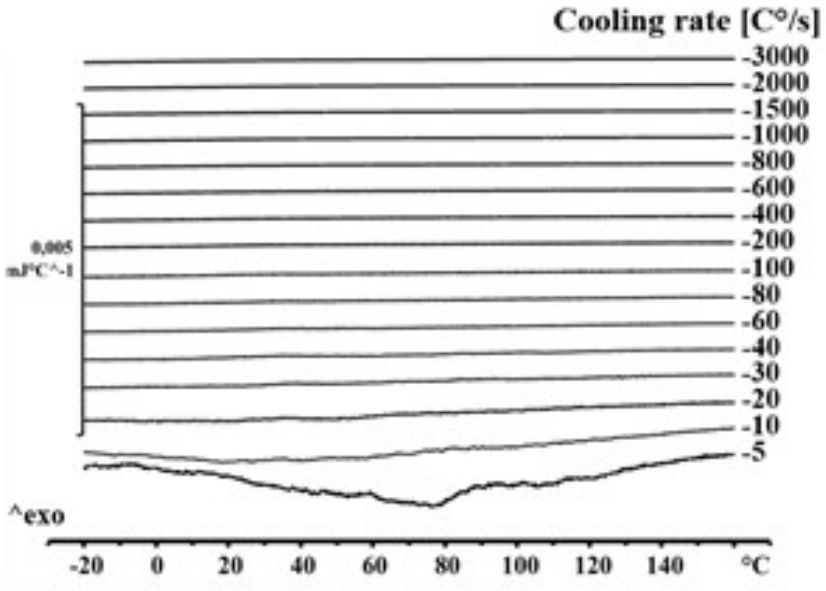


Supporting Info Figure S03: ATR-FTIR of PVDF/PMMA films processed by extrusion-calendering and reprocessed by thermocompression at 210°C followed by quenching in LN_2 (a), LN_2/methanol (-80°C) (b), cold water (0°C) (c) and temperate water (35°C) (d).

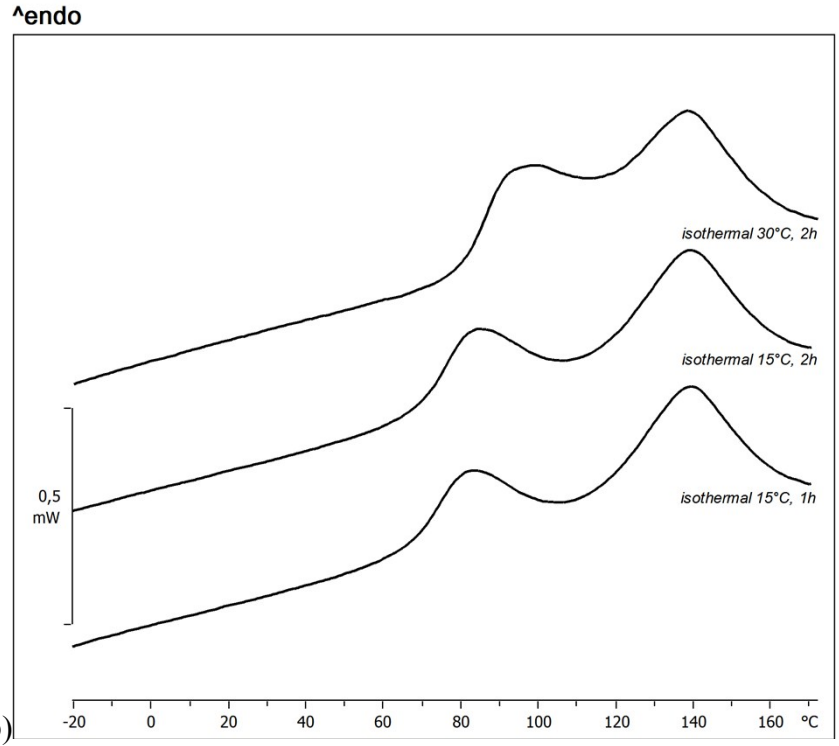
a) 

b) 

Supporting Info Figure S04: PLOM experiments on PVDF/PMMA 90:10 thin film after cooling from the melt state at 10°C/min (a) and quenching into cold water (b).

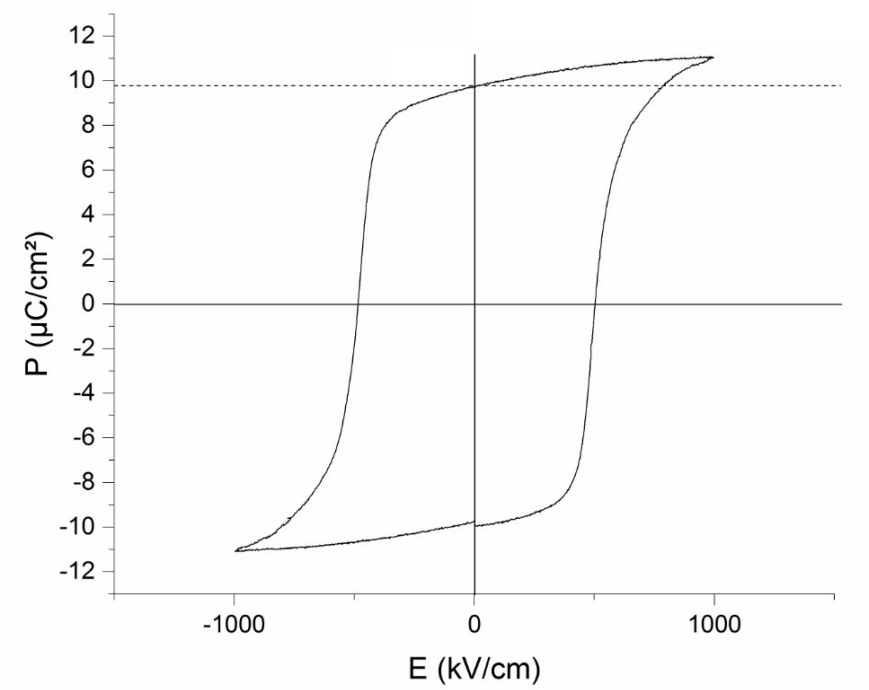


a)



b)

Supporting Info Figure S05: Flash DSC analysis of the PVDF/PMMA 80:20 blend. Cooling curves as a function of cooling rate (a) and heating curves after various annealing treatments (b).



Supporting Info Figure S06: Dielectric behavior for a P(VDF-*co*-TrFE) (75% TrFE, provided by PiezoTech, France) produced by thermocompression (film thickness 60µm annealed at 140°C, maximal poling field 10000 KV/cm).