

Smart Reactivity in Gelatine/PNIPAM Mixtures: Control of the Cross-Linking and Microheterogeneities

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Summary: Chemical cross-linking of gelatine was achieved by using a thermo-sensitive reactive poly(N-isopropylacrylamide) as a cross-linker. The reaction occurs only below the LCST. Controlled micro-heterogeneities were created inside the gel without macroscopic volume transition. Acceleration of the drying process indicates faster water diffusion in the micro-heterogeneous gel.

Keywords: gelatine; gels; heterogeneities; poly(N-isopropylacrylamide); stimuli-sensitive polymers