



Figure S2. FT-IR spectra of poly(*N*-isopropylacrylamide-*co*-vinylphenylboronate-*co*-*N,N*-dimethylaminoethylmethacrylate) (NVDT) and the constituent monomers. FT-IR characterization of NVDT has confirmed the successful copolymerization of the respective monomers. Absorbance of amide-carbonyl group at 1638.28 cm^{-1} and N-H bending at 1550.47 cm^{-1} are the characteristic peaks of *N*-isopropylacrylamide (NIPAAm). Appearance of a small peak at 1715.18 cm^{-1} for C=O stretching confirm the copolymerization of *N,N*-dimethylaminoethylmethacrylate (DMAEMA). Further, two characteristic absorption bands for $-\text{N}(\text{CH}_3)_2$ of DMAEMA are observed at 2971.45 cm^{-1} and 2925.30 cm^{-1} . A broad band of absorbance has appeared at 3423.22 cm^{-1} for the hydrogen bonded OH-groups of 4-vinylphenylboronate (VPBA). A benzene ring vibration at 1463.39 cm^{-1} , B-O stretching at 1367.86 cm^{-1} and B-OH at 1130.66 cm^{-1} confirms VPBA as a part of the terpolymer.