Supplementary materials

Preparation and characterization of preformed polyelectrolyte and polyampholyte gel particles for plugging of high-permeability porous media

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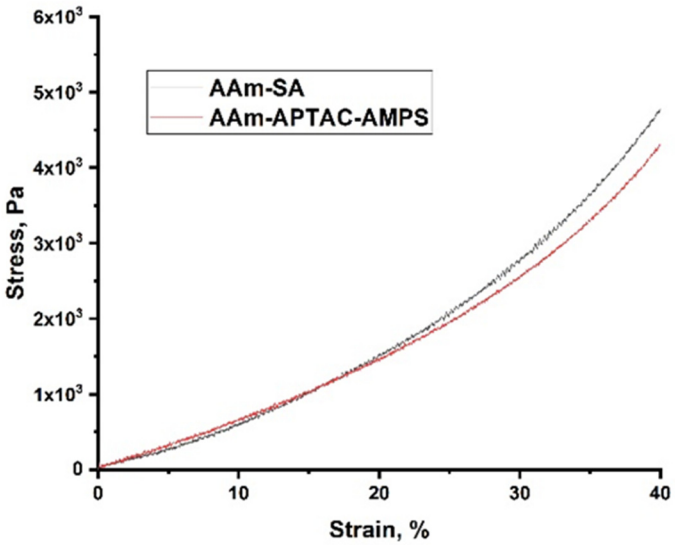


Figure S1. Stress-strain curves of hydrogels

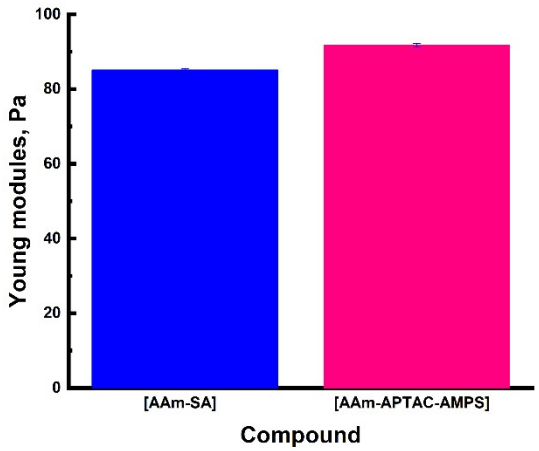


Figure S2. Dependence of Young's modulus of hydrogels on their composition

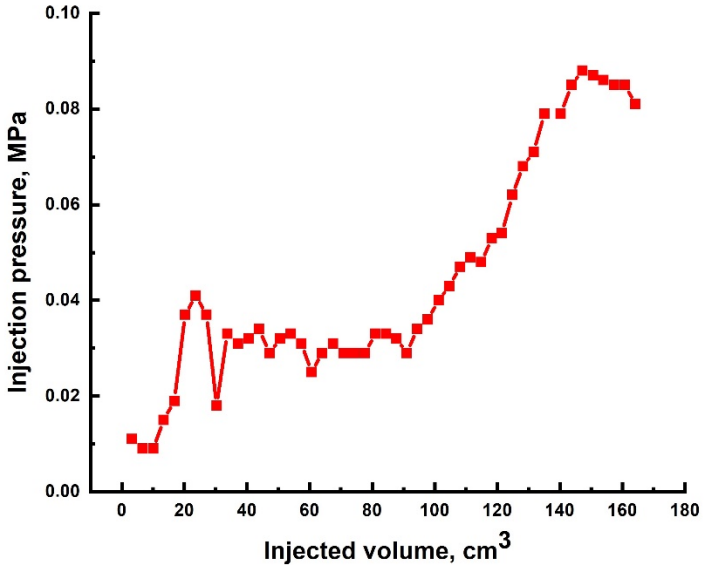


Figure S3. The injection pressure *vs* injected volume in the course of the injection of 0.5 wt.% 6-7 mln Da HPAM/0.5 wt.% chromium acetate gelling solution into 5.5 Darcy sand pack model



a) b)

Figure S4. a) Inlet face of the sand pack model after the experiment; b) coarse sand and polymer gel extracted from the model after the experiment

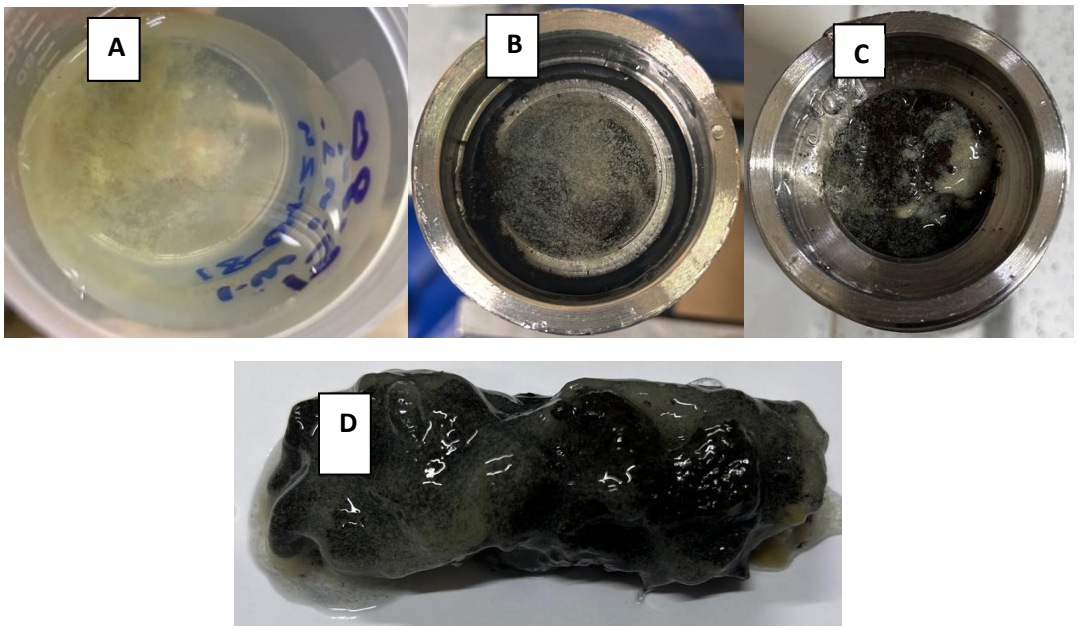


Figure S5. A) Effluent sample collected at the outlet of the sand pack model during the injection of [0.5 wt.% polymer/0.5 wt.% AAm_{95}-SA_5/0.05 wt.% chromium acetate] gel; B) inlet; C) outlet of the sand pack; D) sand pack after the experiment.

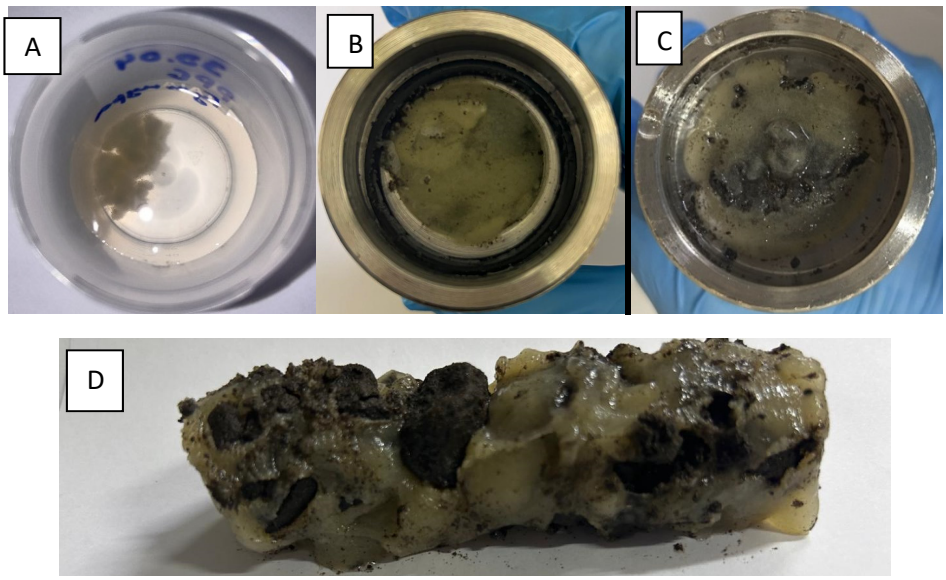


Figure S6. A) Effluent sample collected at the outlet of the sand pack model during the injection of [0.5 wt.% polymer/0.5 wt.% AAm_{95}-$APTAC_{2.5}$-$AMPS_{2.5}$ 0.05 wt.% chromium acetate] gel; B) inlet; C) outlet of the sand pack; D) sand pack after the experiment.



Figure S7. Preparation of sand for the flooding experiment.

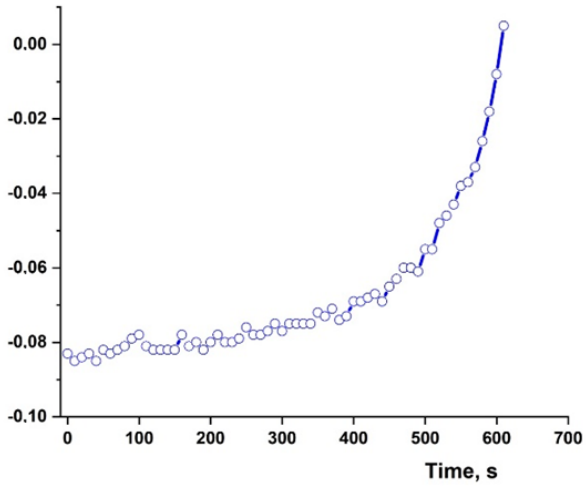


Figure S8. Saturating sand pack model with 26.6 $g \cdot L^{-1}$ brine.