Electronic Supplementary Material (ESI) for RSC Advances.

Adsorption Behavior of Copolymer AM/DMC/APEG/DMAAC-16 on Carbonate Rock and Its Application for Acidizing

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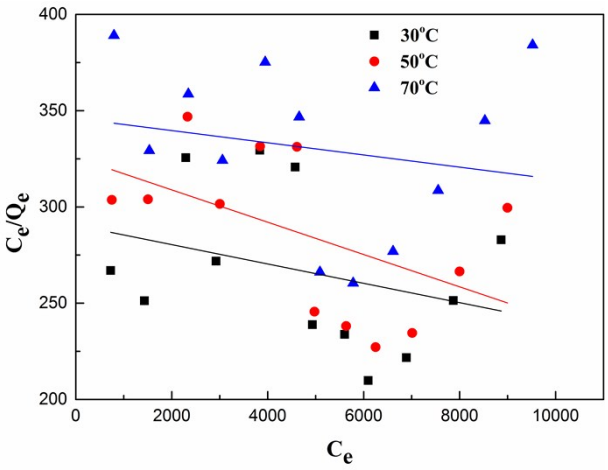

Fig. S1. Langmuir isotherms for PADAD adsorbed on carbonate rock.

Table S1. Langmuir parameters for PADAD adsorbed on carbonate rock.

Temperature (°C)	Langmuir equation	R^2
30	y=-0.0083x+301.07	0.1986
50	y=-0.0084x+325.65	0.2667
70	y=-0.0032x+346.01	0.0384

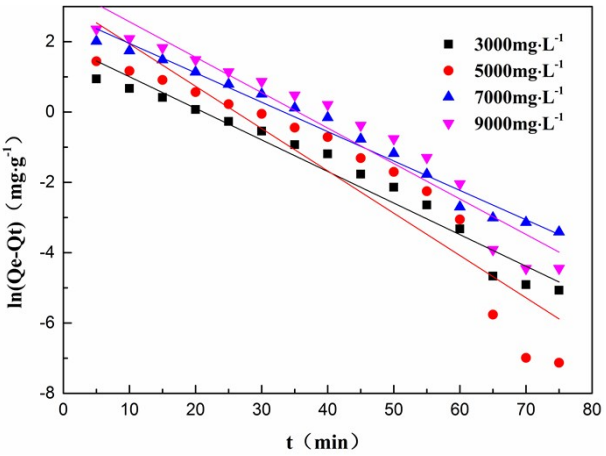

Fig. S2. Pseudo-first-order equation for the adsorption kinetics of PADAD on carbonate rock at different initial concentration

Table S2. Kinetic parameters for the Pseudo-first-order equation

Initial concentration ($mg \cdot L^{-1}$)	Q_e ($mg \cdot g^{-1}$)	Kinetics equation	R_1^2	$Q_{e,1}$ ($mg \cdot g^{-1}$)	k_1 (min^{-1})
3000	7.0494	y=-0.0898x+1.9015	0.9626	6.6959	0.2068
5000	11.6421	y=-0.1203x+3.1390	0.8787	23.0808	0.2771
7000	20.6587	y=-0.0836x+2.7871	0.9817	16.2339	0.1925
9000	29.0481	y=-0.1008x+3.5753	0.9337	35.7053	0.2321

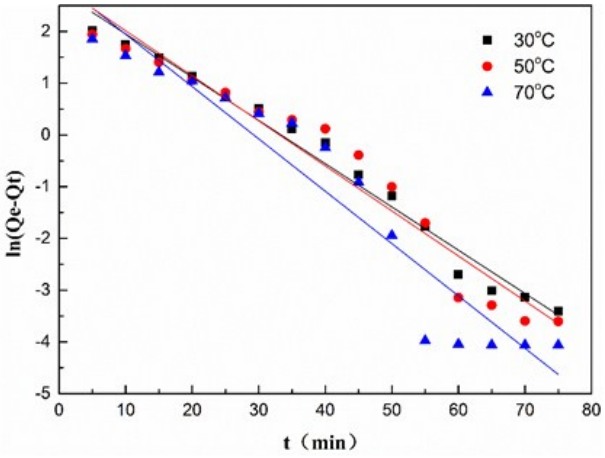

Fig. S3. Pseudo-first-order equation for the adsorption kinetics of PADAD on carbonate rock at different temperature

Table S3. Kinetic parameters for the Pseudo-first-order equation at different temperature

Temperature (°C)	Q_e (mg • g^{-1})	Kinetics equation	R_1^2	$Q_{e,1}$ (mg • g^{-1})	k_1 (min^{-1})
30	20.6587	y=-0.0836x+2.7871	0.9817	16.2339	0.1925
50	20.2566	y=-0.0870x+2.8816	0.9480	17.8428	0.2004
70	19.1412	y=-0.1011x+2.9569	0.9222	19.2382	0.2328