

Supplementary Materials

Nomenclature of used abbreviations and values

AA – acrylic acid;

AFM – atomic force microscopy;

AIBN – azobisisobutyronitrile;

C_{IDOX} – concentration of doxorubicin immobilized through electrostatic interactions;

C_{COOH} – concentration of acrylic acid residues in the system;

$C_{DOX} = C_{DOX}^{max} - C_{IDOX}$ – concentration of free doxorubicin;

C_{DOX}^{max} – the maximum concentration of doxorubicin that would have been achieved upon its complete release;

$\overline{C_{DOX}}$ is the equilibrium concentration of free doxorubicin;

ΔG_T^0 – standard Gibbs energy of doxorubicin release;

ΔH_T^0 – standard enthalpy of release of doxorubicin;

k_1 - doxorubicin release rate constant;

$k_{-1} = k'_{-1}C_{COOH}$ – doxorubicin binding rate constant;

k'_{-1} – doxorubicin binding rate constant normalized to the concentration of carboxyl groups;

K - doxorubicin release equilibrium constant;

n-ODM – n-octadecylmercaptan;

ΔS_T^0 – standard entropy of release of doxorubicin;

TEM – transmission electron microscopy;

t – time;

VP – N-vinyl-2-pyrrolidone;

$x^{(r)}$ – mole fraction of acrylic acid in the reaction mixture;

$x^{(c)}$ – mole fraction of acrylic acid in the copolymer;

ξ and ξ_{∞} are the conversion and equilibrium conversion of doxorubicin release.