Title: Modelling Drug Release from Polymer-Free Coronary Stents with Microporous Surfaces

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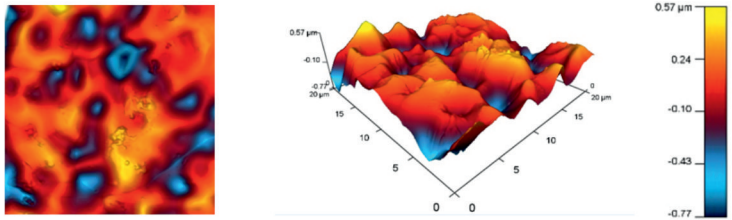
AFM images of microporous surface of stent



Conduct drug release experiment for stent

Develop a mathematical model for release

$$\frac{\partial b}{\partial t} = -k_a(x)b + k_d(x)c$$

$$\frac{\partial c}{\partial t} = D\frac{\partial^2 c}{\partial x^2} + k_a(x)b - k_d(x)c$$

Comparison of theory and experiment