Effects of physiological self-crowding of DNA on shape and biological properties of DNA molecules with various levels of supercoiling

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Δlk = 0, crowding conditions: diluted

We show that self-crowding of supercoiled DNA molecules acts in a similar way as increasing effective density of supercoiling in non-crowded DNA molecules.

Physiological crowding of DNA molecules stimulates interaction between cis-regulatory elements in circular DNA molecules.