Title:	Sequencing of semiflexible polymers of varying bending rigidity using patterned pores
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Abstract:	We study the translocation of a semiflexible polymer through extended pores with patterned stickiness, using Langevin dynamics simulations. We find that the consequence of pore patterning on the translocation time dynamics is dramatic and depends strongly on the interplay of polymer stiffness and pore-polymer interactions. For heterogeneous polymers with periodically varying stiffness along their lengths, we find that variation of the block size of the sequences and the orientation results in large variations in the translocation time distributions. We show how this fact may be utilized to develop an effective sequencing strategy. This strategy involving multiple pores with patterned surface energetics can predict heteropolymer sequences having different bending rigidity to a high degree of accuracy.
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