

ELECTRONIC SUPPLEMENTARY INFORMATION

**Effect of blockage ratio on flow of a viscoelastic wormlike micellar solution past a cylinder in a microchannel**

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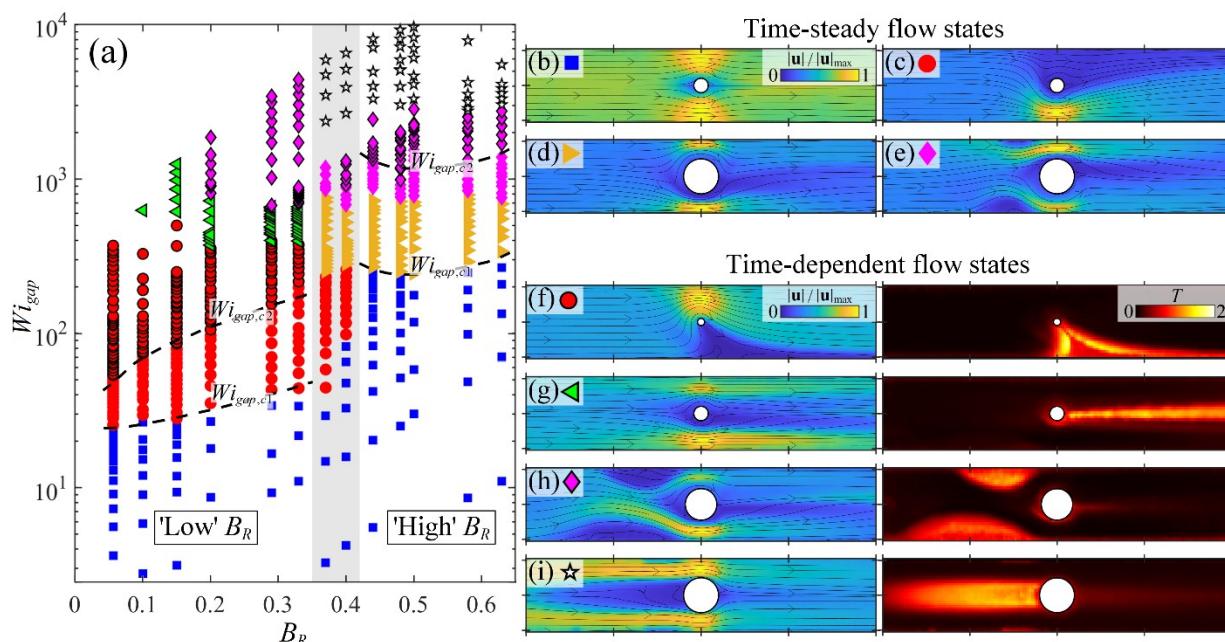


Fig. S1 (a) Flow state diagram in  $Wi_{gap}$ - $B_R$  state space. Coloured symbols represent different steady and time-dependent flow states depicted to the right, as indicated by corresponding symbols: (b) low-  $Wi_{gap}$  ‘symmetric’ state ( $B_R = 0.2$ ,  $Wi_{gap} = 18$ ); (c) ‘laterally asymmetric’ state ( $B_R = 0.2$ ,  $Wi_{gap} = 81$ ); (d) ‘upstream bending streamlines’ ( $B_R = 0.48$ ,  $Wi_{gap} = 564$ ); (e) ‘upstream wall vortices’ ( $B_R = 0.48$ ,  $Wi_{gap} = 873$ ); (f) ‘time-dependent laterally asymmetric’ state ( $B_R = 0.1$ ,  $Wi_{gap} = 190$ ); (g) ‘asymmetric jetting’ ( $B_R = 0.2$ ,  $Wi_{gap} = 722$ ); (h) ‘time-dependent upstream wall vortices’ ( $B_R = 0.44$ ,  $Wi_{gap} = 1347$ ); (i) ‘upstream cylinder vortex’ ( $B_R = 0.48$ ,  $Wi_{gap} = 5123$ ).