Additions and Corrections

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Enhanced Fluid Flow through Nanoscale Carbon Pipes.

Page 2636. An error has been detected in our calculation of slip lengths for the flow of fluids through 44 nm diameter nanopipes which have been corrected in the revised Table 1 below. The main results, namely, the experimentally determined values we report for flow enhancement, and our conclusions are not affected. We express our gratitude to J. Thomas and A. McGaughey from the Department of Mechanical Engineering at Carnegie Mellon University who drew the error to our attention.

	decane	ethanol	water
viscosity of fluid (Pa·s)	0.960	1.074	1.002
44 nm diameter nanopipes (this study)			
flow enhancement factor (ignoring effect of supporting grid)	28 ± 6	16 ± 1	22 ± 2
flow enhancement factor (allowing for effect of supporting grid)	45 ± 2	25 ± 2	34 ± 3
calculated slip length (nm, ignoring effect of supporting grid)	145 ± 9	81 ± 8	113 ± 9
calculated slip length (nm, allowing for effect of supporting grid)	237 ± 12	129 ± 9	177 ± 15
7 nm diameter nanotubes (Majumder et al. 2005)			
flow enhancement factor	3941	32143	61404
calculated slip length (nm)	3448	28124	53728
<2 nm diameter nanotubes (Holt et al. 2006)			
flow enhancement factor			560 to 8400
calculated slip length (nm)			140 to 1400

 $^{^{}a}$ Values are quoted ± 1 SD (n=3) both with and without allowing for reduction of effective membrane area due to the supporting metal grid (see discussion in main text). Corresponding results from two recent studies of pressure-driven flow through smaller carbon nanotubes are provide for comparison.

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