

Electronic Supplementary Information

Simulation Details

Aqueous solutions of **1** and **2** were modelled through molecular dynamics simulations at 300 K. These involved solvation of a single molecule of **1** or **2** in a water sphere of radius 25 Å containing 2165 TIP3P¹ water molecules. This assembly was partitioned into a 23 Å/25 Å reaction region/buffer region for stochastic boundary molecular dynamics. The solvent was first minimized and subjected to an equilibration period of 22.5 ps at 300 K, during which the solute was restrained. A 10 ps unrestrained equilibration was then performed followed by a 500 ps unrestrained production simulation at 300 K. The molecular dynamics calculations were performed using the CHARMM² program with the CHARMM22³ force field and the SHAKE⁴ algorithm to constrain bonds to hydrogen, allowing a time step of 1 fs, and a deformable boundary potential with a Langevin frictional coefficient of 62 ps⁻¹, applied to the water oxygen atoms.⁵

All ab initio calculations were performed using the Gaussian98 program.⁶

- 1 W. L. Jorgensen, J. Chandrasekhar, J. D. Madura, R. W. Impey and M. L. Klein, *J. Chem. Phys.*, 1983, **79**, 926.
- 2 C. L. Brooks, R. E. Brucoleri, B. D. Olafson, D. J. States, S. Swaminathan and M. Karplus, *J. Comput. Chem.*, 1983, **4**, 187.
- 3 A. D. Mackerell, Jr, D. Bashford, M. Bellott, R. L. Dunbrack, Jr., J. D. Evanseck, M. J. Field, S. Fischer, J. Gao, H. Guo, S. Ha, D. Joseph-McCarthy, L. Kuchnir, K. Kuczera, F. T. K. Lau, C. Mattos, S. Michnick, T. Ngo, D. T. Nguyen, B. Prodhom, W. E. Reiher, III, B. Roux, M. Schlenkrich, J. C. Smith, R. Stote, J. Straub, M. Watanabe, J. Wiorkiewicz-Kuczera, D. Yin and M. Karplus, *J. Phys. Chem. B*, 1998, **102**, 3586.
- 4 P. Ryckaert, G. Ciccotti and H. J. C. Berendsen, *J. Comput. Phys.*, 1977, **23**, 237.
- 5 A. Brunger, C. L. Brooks III and M. Karplus, *Chem. Phys. Lett.*, 1984, **105**, 495.
- 6 M. J. Frisch, G. W. Trucks, H. B. Schlegel, G. E. Scuseria, M. A. Robb, J. R. Cheeseman, V. G. Zakrzewski, J. A. Jr. Montgomery, R. E. Stratmann, J. C. Burant, S. Dapprich, J. M. Millam, A. D. Daniels, K. N. Kudin, M. C. Strain, O. Farkas, J. Tomasi, V. Barone, M. Cossi, R. Cammi, B. Mennucci, C. Pomelli, C. Adamo, S. Clifford, J. Ochterski, G. A. Petersson, P. Y. Ayala, Q. Cui, K. Morokuma, D. K. Malick, A. D. Rabuck, K. Raghavachari, J. B. Foresman, J. Cioslowski, J. V. Ortiz, A. G. Baboul, B. B. Stefanov, G. Liu, A. Liashenko, P. Piskorz, I. Komaromi, R. Gomperts, R. L. Martin, D. J. Fox, T. Keith, M. A. Al-Laham, C. Y. Peng, A. Nanayakkara, C. Gonzalez, M. Challacombe, P. M. W. Gill, B. G. Johnson, W. Chen, M. W. Wong, J. L. Andres, M. Head-Gordon, E. S. Replogle, J. A. Pople, Gaussian 98 (Revision A.7); Gaussian, Inc.: Pittsburgh PA, 1998.