

**Professor Peter H. Barry, BSc, PhD, DSc**

**All major publications**

*This listing includes: Regular paper, Invited Reviews, Invited Chapters in Books, Invited Symposium Papers and Additional Papers on Practical Class Teaching*

- PB1. Barry, P.H. & Hope, A.B. (1969). Electro-osmosis in membranes: effects of unstirred layers and transport numbers: Part I: Theory. *Biophys. J.* **9** (5), 700-728. **[125]**
- PB2. Barry, P.H. & Hope, A.B. (1969). Electro-osmosis in membranes: effects of unstirred layers and transport numbers: Part II: Experimental. *Biophys. J.* **9** (5), 729-757. **[94]**
- PB3. Barry, P.H. & Hope, A.B. (1969). Electro-osmosis in Chara and Nitella cells. *Biochim. Biophys. Acta.* **193**, 124-128. **[6]**
- PB4. Barry, P.H. & Diamond, J.M. (1970). Junction potentials, electrode standard potentials, and other problems in interpreting electrical properties of membranes. *J. Membrane Biol.* **3**, 93-122. **[195]**
- PB5. Barry, P.H. (1970). Volume flows and pressure changes during an action potential in cells of *Chara australis*. I. Experimental results. *J. Membrane Biol.* **3**, 313-334.
- PB6. Barry, P.H. (1970). Volume flows and pressure changes during an action potential in cells of *Chara australis*. II. theoretical considerations. *J. Membrane Biol.* **3**, 335-371.
- PB7. Barry, P.H. & Diamond, J.M. (1971). A theory of ion permeation through membranes with fixed neutral sites. *J. Membrane Biol.* **4**, 295-330. **[48]**
- PB8. Wright, E.M., Barry, P.H. & Diamond, J.M. (1971). The mechanism of cation permeation in rabbit gall-bladder: conductances, the current-voltage relation, the concentration dependence of anion-cation discrimination, and the calcium competition effect. *J. Membrane Biol.* **4**, 331-357. **[70]**
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- PB11. Barry, P.H. & Adrian, R.H. (1973). Slow conductance changes due to potassium depletion in the transverse tubules of frog muscle fibres during hyperpolarizing pulses. *J. Membrane Biol.* **14**, 243-292. **[35]**
- PB12. Barry, P.H. (1973). An approximate analysis of the swelling of the transverse tubular system of a muscle fibre following loading of the fibre with a permeant solute such as glycerol. (An appendix to a paper by A.F. Dulhunty and P.W. Gage, *J. Physiol.* **234**, 373- 408). *J. Physiol.* **234**, 399 - 405.
- PB13. Barry, P.H. (1974). Cation permeability and selectivity in biological membranes. *Proc. Aust. Physiol. Pharmacol. Soc.* **5**, 10-17.
- PB14. Barry, P.H. (1977). Transport number effects in the transverse tubular system and their implications for low frequency impedance measurement of capacitance of skeletal muscle fibers. *J. Membrane Biol.* **34**, 383-408. **[9]**
- PB15. Barry, P.H., Gage, P.W. & Van Helden, D.F. (1979). End-plate channels behave as neutral site channels. *Neuroscience Letters* **11**, 233-237. **[2]**
- PB16. Barry, P.H., Gage, P.W. & Van Helden, D.F. (1979). Cation permeation at the amphibian motor end-plate. *J. Membrane Biol.* **45**, 245-276. **[22]**
- PB17. Barry, P.H., Gage, P.W. & Van Helden, D.F. (1979). Cation permeation through single motor end-plate channels. *Excerpta Medica, International Congress Series*, **473**, 174-184.

- PB18. Gage, P.W., Hamill, O.P., Van Helden, D.F. & Barry, P.H. (1979). Acetylcholine receptors and end-plate channels. *Excerpta Medica, International Congress Series*, **473**, 166-173.
- PB19. Takeda, K., Barry, P.H. & Gage, P.W. (1980). Effects of ammonium ions on end-plate channels. *J. Gen. Physiol.*, **75**, 589-613. [11]
- PB20. Dulhunty, A.F., Gage, P.W. & Barry, P.H. (1981). Asymmetrical charge movement in normal and glycerol-treated toad sartorius fibres. *Adv. Physiol. Sci. Vol. 5. In: Molecular and Cellular Aspects of Muscle Function*. E. Varga, A. Kover, T. Kovacs (eds), 321-327.
- PB21. Barry, P.H. (1981). Unstirred layers and volume flows across biological membranes. *In: Water Transport across Epithelia*. Alfred Benzon Symposium **15**, 132-146 (and 147-153 of discussion).
- PB22. Takeda, K., Gage, P.W. & Barry, P.H. (1982). Effects of divalent cations on toad end-plate channels. *J. Membrane Biol.*, **64**, 55-66 [26]
- PB23. Takeda, K., Barry, P.H. & Gage, P.W. (1982). Effects of extracellular sodium concentration on null potential, conductance and open time of end-plate channels. *Proc. Roy. Soc. (London) B*. **216**, 225-251. [14]
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- PB26. Barry, P.H. & Dulhunty, A.F. (1984). Slow potential changes in mammalian muscle fibers during prolonged hyperpolarization: transport number effects and chloride depletion. *J. Membrane Biol.*, **78**: 235-248. [7]
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- PB28. Barry, P.H. & Gage, P.W. (1984). Ion selectivity of channels at the end-plate. In: *Current Topics in Membranes and Transport*, (Academic press), **21**: 1-51. [17]
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- PB34. Lynch, J.W, Barry, P.H. & Quartararo, N. (1988). A temperature and solution control system for the measurement of single channel currents in excised membrane patches. *Pflügers Archiv* **412**: 322-327. [7]
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- PB38. Barry, P.H. (1990). A membrane potential simulation program for IBM-PC-Compatible equipment for students in the physiological and biological sciences. *Am. J. Physiol* (**259**, *Adv. Physiol.Educ.* **4**), S15-S23.
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- PB54. Barry, P.H. (1994). JPCalc - a software package for calculating liquid junction potential corrections in patch-clamp, intracellular, epithelial and bilayer measurements and for correcting junction potential measurements. *J. Neurosci. Methods*, **51**: 107-116. **[244]**
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- PB59. Fatima-Shad, K. and Barry, P.H. (1994). Anion selectivity in GABA- and glycine-activated channels of post-natal tissue cultured hippocampal neurons. In: *Studies in Honour of Karl Ullrich - An Australian Symposium* (Eds. Poronnik, P., Cook, D.I. and Young, J.A.) Pp. 49-52.
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- PB74. Hallani, M., Lynch, J.W. and Barry, P.H. (1998). Characterisation of calcium-activated chloride channels in patches excised from the dendritic knob of olfactory receptor neurons. *J. Membrane Biol.* **161**: 163-171. **[28]**
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[However, Journal ceased publishing just before paper was published]
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**Citation Count** - As of June 2008, the total citation count was in excess of 2,900 citations. Where known the 2006 citation count is listed after the publication in [ ].