**Microwave sample preparation references**

Ahmari, S.E., Buchanan, J., Smith S.J. *Assembly of presynaptic active zones from cytoplasmic transport packets*. Nature Neuroscience, [3(5):445-451](http://stehm.uvic.ca/http:/www.nature.com/neuro/journal/v3/n5/abs/nn0500_445.html) (2000)

Arana-Chavez, V.E., Nanci, A. *High-resolution immunocytochemistry of noncollagenous matrix proteins in rat mandibles processed with microwave irradiation*. Journal of Histochemistry and Cytochemistry, [49(9):1099-1110](http://www.jhc.org/cgi/content/abstract/49/9/1099) (2001)

Buchanan, J. *Microwave processing of Drosophila tissues for electron microscopy*. [Microscopy Today](http://www.microscopy-today.com/jsp/mto/print_archive/print_archive.faces), 12(6):42 (2004)

Chicoine, L., and Webster, P. *The effect of microwave irradiation on antibody labeling efficiency when applied to ultrathin cryosections through fixed biological material*. Microscopy Research and Technique [42(1):24-32](http://www3.interscience.wiley.com/journal/38636/abstract) (1998)

Cunningham, C.D.III., Schulte, B.A., Bianchi, L.M., Weber, P.C., Schmiedt, B.A. *Microwave decalcification of human temporal bones*. Laryngoscope [111(2):278-282](http://www3.interscience.wiley.com/journal/121607785/abstract) (2001)

Demaree, R.S., Jr., Giberson, R.T., Smith, R.L. *Routine microwave polymerization of resins for transmission electron microscopy*. [Scanning](http://www3.interscience.wiley.com/journal/113412420/home) 17(Suppl. 5):25-26 (1995)

Fiala, J.C., Feinberg, M., Popov, V., Harris, K.M. *Synaptogenesis via dendritic filopodia in developing hippocampal area CA1*. Journal of Neuroscience, [18(21):8900-8911](http://www.jneurosci.org/cgi/content/abstract/18/21/8900) (1998)

Fox, N.E., Demaree, R.S.Jr. *Quick bacterial microwave fixation technique for scanning electron microscopy*. Micrososcopy Research and Technique [46(4-5):338-339](http://www3.interscience.wiley.com/journal/63500943/abstract) (1999)

Galvez, J.J., Giberson, R.T., Cardiff, R.D. *Microwave mechanisms - the energy/heat dichotomy*. [Microscoscopy Today](http://www.microscopy-today.com/jsp/mto/print_archive/print_archive.faces) 12(2):18-23 (2004)

Gerrity, R.G., Forbes, G.W. *Microwave processing in diagnostic electron microscopy*. [Microscoscopy Today](http://www.microscopy-today.com/jsp/mto/print_archive/print_archive.faces) 11(6):38-41 (2003)

Giberson, R.T., Austin, R.L., Charlesworth, J., Adamson, G., Herrera, G.A. *Microwave and digital imaging technology reduce turnaround times for diagnostic electron microscopy*. Ultrastructural Pathology [27(3):187-196](http://www.informaworld.com/smpp/content%7Edb=all%7Econtent=a713859742) (2003)

Giberson, R.T., Demaree, R.S., Jr., Editors, 2001, Microwave Techniques and Protocols, Humana Press, Totowa, NJ.

Giberson, R.T., Elliott, D.E. *Microwave-assisted formalin fixation of fresh tissue: A comparative study*. In Giberson R.T., Demaree R.S.Jr., eds. Microwave Techniques and Protocols, Totowa, NJ, Humana Press, 191-208 (2001)

Giberson, R.T., Demaree, R.S., Jr. *Microwave processing techniques for electron microscopy: A four-hour protocol*. In: Electron Microscopy Methods and Protocols. N. Hajibagheri, ed. Humana Press, Inc., Totowa, NJ. (1999)

Giberson, R.T., Demaree, R.S., Jr., Nordhausen, R.W. *Four-hour processing of clinical/diagnostic specimens for electron microscopy*. Journal of Veterinary Diagnostic Investigation [9(1):61-67](http://jvdi.org/cgi/content/abstract/9/1/61?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=1&andorexacttitle=and&andorexacttitleabs=and&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&volume=9&firstpage=61&resourcetype=HWCIT) (1997)

Giberson, R.T., Smith, R.L., Demaree, R.S. *Three hour microwave tissue processing for transmission electron microscopy: from unfixed tissues to sections*. [Scanning](http://www3.interscience.wiley.com/journal/113412420/home) 17(suppl. 5):26-27 (1995)

Giberson, R.T., Demaree, R.S., Jr. *Microwave fixation: Understanding the variables to achieve rapid reproducible results*. Microscopy Research and Technique [32(3):246-254](http://www3.interscience.wiley.com/journal/109897971/abstract) (1995)

Jonas, E.A., Buchanan, J., Kaczmarek, L.K. *Prolonged Activation of mitochondrial conductances during synaptic transmission*. Science [286(5443):1347-1350](http://www.sciencemag.org/cgi/content/abstract/sci;286/5443/1347?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=&searchid=1&FIRSTINDEX=0&volume=286&firstpage=1347&resourcetype=HWCIT) (1999)

Jontes, J.D., Buchanan, J., Smith, S.J. *Growth cone and dendrite dynamics in zebrafish embryos: early events in synaptogenesis imaged in vivo*. Nature Neuroscience [3(3):231-237](http://www.nature.com/neuro/journal/v3/n3/abs/nn0300_231.html) (2000)

Keithley, E.M., Truong, T., Chandronait, B., Billings, P.B. *Immunohistochemistry and microwave decalcification of human temporal bones*. Hearing Research [148(1-2):192-196](http://dx.doi.org/10.1016/S0378-5955%2800%2900153-2) (2000)

Lonsdale, J.E., McDonald, K.L., Jones, R.L. *High pressure freezing and freeze substitution reveal new aspects of fine structure and maintain protein antigenicity in barley aleurone cells*. The Plant Journal [17(2):221-229](http://www3.interscience.wiley.com/journal/119095663/abstract) (1999)

Madden, V.J. *Microwave processing of cell monolayers in situ for post-embedding immunocytochemistry with retention of ultrastructure and antigenicity*. [Microscopy and Microanalysis](http://journals.cambridge.org/action/displayJournal?jid=MAM) 4(Suppl 2:Proceedings):854-55 (1998)

Madden, V.J., Henson, M.M. *Rapid decalcification of temporal bones with preservation of ultrastructure*. Hearing Research [111(1-2):76-84](http://dx.doi.org/10.1016/S0378-5955%2897%2900107-X) (1997)

Massa, L.F., Arana-Chavez, V.E. *Ultrastructural preservation of rat embryonic dental tissues after rapid fixation and dehydration under microwave irradiation*. European Journal of Oral Sciences [108(1):74-77](http://www3.interscience.wiley.com/journal/120773860/abstract) (2000)

Micheva, K.D., Holz, R.W., Smith, S.J. *Regulation of presynaptic phosphatidylinositol 4,5-biphosphate by neuronal activity*. Journal of Cell Biology [154(2):355-368](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2150764/?report=abstract) (2001)

Mishra, S., Webster, P., and M. E. Davies *PEGylation significantly affects cellular uptake and intracellular trafficking of non-viral gene delivery particles*. European Journal of Cell Biology [83(3):97-111](http://dx.doi.org/10.1078/0171-9335-00363) (2004)

Munoz, T.E., Giberson, R.T., Demaree, R., Day J.R. *Microwave-assisted immunostaining: a new approach yields fast and consistent results*. Journal of Neuroscience Methods [137(2):133-139](http://dx.doi.org/10.1016/j.jneumeth.2004.02.020) (2004)

Paupard, M-C., Miller, A., Grant, B., Hirsh, D., Hall, D.H. *Immuno-EM localization of GFP-tagged yolk proteins in C. elegans using microwave fixation*. Journal of Histochemistry and Cytochemistry [49(8):949-956](http://www.jhc.org/cgi/content/abstract/49/8/949?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=1&andorexacttitle=and&andorexacttitleabs=and&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&volume=49&firstpage=949&resourcetype=HWCIT) (2001)

Petrali, J.P., Mills, K.R. *Microwave-assisted immunoelectron microscopy of skin*. [Microscopy and Microanalysis](http://journals.cambridge.org/action/displayJournal?jid=MAM) 4(Suppl 2:Proceedings):1114-1115 (1998)

Rangell, L.K., Keller, G-A. *Application of microwave technology to the processing and immunolabeling of plastic-embedded and cryosections*. Journal of Histochemistry and Cytochemistry [48(8):1153-1160](http://www.jhc.org/cgi/content/abstract/48/8/1153?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=1&andorexacttitle=and&andorexacttitleabs=and&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&volume=48&firstpage=1153&resourcetype=HWCIT) (2000)

Rassner, U.A., Crumrine, D.A., Nau, P., Elias, P.M. *Microwave incubation improves lipolytic enzyme preservation for ultrastructural cytochemistry*. The Histochemistry Journal [29(5):387-392](http://www.springerlink.com/content/l3t574t494801676/?p=213d670100c7455abb962e27ce9f02e2&pi=2) (1997)

Ruzin, S.E. Plant Microtechnique and Microscopy, Oxford University Press, New York (1999)

Schichnes, D., Nemson, J., Sohlberg, L., Rusin, S.E. *Microwave protocols for paraffin microtechnique and in situ localization in plants*. Microscopy and Microanalysis [4(5):491-496](http://dx.doi.org/10.1017/S1431927698980461) (1998)

Tinling, S.P., Kullar, R., Giberson, R.T. *Microwave assisted decalcification with recirculation of temperature controlled solutions*. [Microscopy and Microanalysis](http://journals.cambridge.org/action/displayJournal?jid=MAM) 8(Suppl.2:Proceedings):148-149 (2002)

Tinling, S.P. Giberson, R.T., Kullar, R.S. *Microwave exposure increases bone demineralization rate independent of temperature*. Journal of Microscopy [215(3):230-235](http://stehm.uvic.ca/docs/prep/microwave/dx.doi.org/10.1111/j.0022-2720.2004.01382.x) (2004)

Tyler, W.J., Pozzo-Miller, L.D. *BDNF enhances quantal neurotransmitter release and increases the number of docked vesicles at the active zones of hippocampal excitatory synapses*. Journal of Neuroscience [21(12):4249-4258](http://www.jneurosci.org/cgi/content/abstract/21/12/4249) (2001)

von Dohlen, C.D., Kohler, S., Alsop, S.T., McManus, W.R. *Mealybug beta-proteobacterial endosymbionts contain gamma-proteobacterial symbionts*. Nature [412(6845):433-436](http://stehm.uvic.ca/docs/prep/microwave/dx.doi.org/10.1038/35086563) (2001)

Webber, P.C., Cunningham, C.D.III., Schulte, B.A. *Potassium Recycling pathways in the human cochlea*. Laryngoscope [111(7):1156-1165](http://stehm.uvic.ca/docs/prep/microwave/dx.doi.org/10.1097/00005537-200107000-00006) (2001)