Publications of Stephanie Tristram-Nagle – July, 2024

115) Mitra, S., Chandersekhar, B., Li, Y., Coopershlyak, M., Mahoney, M.E., Evans, B., Koenig, R., Hall, S.C.L., Kloesgen, B., Heinrich, F., Deslouches, B., TRISTRAM-NAGLE, S. 2024. Novel non-helical antimicrobial peptides insert into and fuse lipid model membranes. Soft Matter 20 : 4088-4101.

114) Mitra, S., Coopershlyak, M., Li, Y., Chandersekhar, B., Koenig, R., Chen, M.-T., Evans, B., Heinrich, F., Deslouches, B., TRISTRAM-NAGLE, S. 2023. Novel Helical Trp- and Arg-Rich Antimicrobial Peptides Locate Near Membrane Surfaces and Rigidify Lipid Model Membranes. Advanced Nanobiomed Research 3:2300013

113) Jakkampudi, T., Lin, Q., Mitra, S., Vijai, A., Qin, W., Kang, A., Chen, J., Ryan, E., Wang, R., Gong, Y., Heinrich, F., Song, J., Di, Y.-P., TRISTRAM-NAGLE, S. 2023. Lung SPLUNC1 Peptide Derivatives in the Lipid Membrane Headgroup Kill Gram-Negative Planktonic and Biofilm Bacteria. Biomacromolecules 24:2904-2815

112) Kawakami, M., Sharma, D., Varni, A.J., TRISTRAM-NAGLE, S., Yaron, S., Kowalewski, T., Noonan, K.J.T. 2023. Design, Synthesis and Aromaticity of an Alternating Cyclo[4]Thiophene[4]Furan. Chemistry – A European Journal e202300477

111) Shafieenezhad, A., Mitra, S., Wassall, S.R., TRISTRAM-NAGLE, S., Nagle, J.F., Petrache, H.I. 2023. Location of Dopamine in Lipid Bilayers and Its Relevance to Neuromodulator Function. Biophysical Journal 122:1118-1129

110) Nagle, J.F., Jennings, N., Qin, W., Yan, D., TRISTRAM-NAGLE, S., Heinrich, F. 2023. Structure of the Gel Phase of diC22:1PC Lipid Bilayers Determined by X-ray Diffraction. Biophysical Journal 122:1033-1042

109) Xiang, W., Clemenza, P., Klousnitzer, J., Chen, J., Qin, W., TRISTRAM-NAGLE, S., Doi, Y., Di, Y.P., Deslouches, B. 2022. Rational Framework for the Design of Trp- and Arg-Rich Peptide Antibiotics Against Multidrug-Resistant Bacteria*.* Frontiers in Microbiology 13:889791(1-16).

108) Allsopp, R., Pavlova, A., Cline, T., Salyapongse, A.M., Gillilan, R.E., Di, Y.P., Deslouches, B., Klauda, J.B., Gumbart, J.C., TRISTRAM-NAGLE, S. 2022. Antimicrobial Peptide Mechanism Studied by Scattering-Guided Molecular Dynamics Simulation. Journal of Physical Chemistry B 126:6922-6935.

107) Nagle, J.F., Evans, E.A., Bassereau, P., Baumgart, T., TRISTRAM-NAGLE, S., Dimova, R. 2021. A Needless but Interesting Controversy. Proceedings of the National Academy of Sciences USA 118:e2025011118 (Letter).

106) Varni, A.J., Kawakami, J.M., TRISTRAM-NAGLE, S., Yaron, D., Kowalewski, T., Noonan, K.J. 2021. Design, Synthesis, and Properties of a Six-Membered Oligofuran Macrocycle. Organic Chemistry Frontiers 8:1775-1782.

105) Loney, R.W., Brandner, B., Dagan, M.P., Smith, P.N., Roche, M., Fritz, J.R., Hall, S.B., TRISTRAM-NAGLE, S. 2021. Changes in Membrane Elasticity Caused by the Hydrophobic Surfactant Proteins Correlate Poorly with Adsorption of Lipid Vesicles. Soft Matter 17:3358-3366.

104) Fritz, J.R., Loney, R.W., Hall, S.B., TRISTRAM-NAGLE, S. 2021. Suppression of Lα/Lβ Phase Coexistence in the Lipids of Pulmonary Surfactant. Biophysical Journal 120:243-253.

103) Loney, R. W., Panzuela, S., Chen, J., Yang, Z., Fritz, J.R., Dell, Z., Corradi, V., Kumar, K., Tieleman, D.P., Hall, S.B., TRISTRAM-NAGLE, S. 2020. Location of the Hydrophobic Surfactant Proteins, SP-B and SP-C in Fluid-Phase Bilayers. Journal of Physical Chemistry B 124:6763-6774.

102) West, A., Zoni, V., Teague, W.E., Leonard, A.N., Vanni, S., Gawrisch, K., TRISTRAM-NAGLE, S., Sachs, J.N., Klauda, J.B. 2020. How do Ethanolamine Plasmalogens Contribute to Order and Structure of Neurological Membranes? Journal of Physical Chemistry B 124:828-839.

101) Seper, B.C., Ko, A., Abma, A., Folkerts, A.D., TRISTRAM-NAGLE, S., Harper, P.E. 2020. Methylene Volumes in Monoglyceride Bilayers Are Larger Than in Liquid Alkanes. Chemistry and Physics of Lipids 226:104833(1-8).

100) Heinrich, F., Salyapongse, A., Kumagai, A., Dupuy, F.G., Shukla, K., Penk, A., Huster, D., Ernst, R.K., Pavlova, A., Gumbart, J.C., Deslouches, B., Di, Y.P., TRISTRAM-NAGLE, S. 2020. Synergistic Biophysical Techniques Reveal Structural Mechanisms of Engineered Cationic Antimicrobial Peptides in Lipid Model Membranes. Chemistry – A European Journal 26:6247-6256.

99) Nagle, J.F., Venable, R.M., Maroclo-Kemmerling, E., TRISTRAM-NAGLE, S., Harper, P.E. and Pastor, R.W. 2019. Revisiting Volumes of Lipid Components in Bilayers. The Journal of Physical Chemistry B 123:2607-2709.

98) Nagle, J.F., Cognet, P., Dupuy, F.G. and TRISTRAM-NAGLE, S. 2019. Structure of Gel Phase DPPC Determined by X-ray Diffraction. Chemistry and Physics of Lipids 218:168-177.

97) Kumagai, A., Dupuy, F.G., Arsov, Z., Elhady, Y., Moody, D., Ernst, R.K., Deslouches, B., Montelaro, R.C., Di, Y.P. and TRISTRAM-NAGLE, S. 2019. Elastic Behavior of Model Membranes with Antimicrobial Peptides Depends on Lipid Specificity and D-Enantiomers. Soft Matter 15:1860-1868.

96) Peralta, M.F., Smith, H., Moody, D., TRISTRAM-NAGLE, S. 2018. Effect of Anti-Leishmania Drugs on the Structural and Elastic Properties of Ultradeformable Lipid Membranes. Journal of Physical Chemistry B 122:7332-7339.

95) TRISTRAM-NAGLE, S. 2018. Physics of HIV. Journal of Physics D: Applied Physics 51:183001.

94) Arsov, Z., González-Ramírez, E.J., Goñi, F.M., TRISTRAM-NAGLE, S., Nagle, J.F. 2018. Phase Behavior of Palmitoyl and Egg Sphingomyelin. Chemistry and Physics of Lipids 13:102-110.

93) Dupuy, F.G., Pagano, I., Andenoro, K., Peralt, M.F., Elhady, Y., Heinrich, F., TRISTRAM-NAGLE. 2018. Selective Interaction of Colistin with Lipid Model Membranes. Biophysical Journal 114:919-928.

92) Skandani, A., Clement, J.A., TRISTRAM-NAGLE, S., Shankar, M.R. 2017. Aliphatic Flexible Spacer Length Controls Photomechanical Response in Compact, Ordered Liquid Crystalline Polymer Networks. Polymer 133:30-39.

91) O’Neil, L., Andenoro, K., Pagano, I., Carroll, L., Langer, L., Dell, Z., Perera, D., Treece, B.W., Heinrich, F., Lösche, M., Nagle, J.F., TRISTRAM-NAGLE, S. 2016. HIV-1 Matrix-31 Membrane Binding Peptide Interacts Differently with Membranes Containing PS vs. PI(4,5)P2. Biochimica et Biophysica Acta 1858:3071-3081.

90) Stetten, A.Z., Moraca, G., Corcoran, T.E., TRISTRAM-NAGLE, S., Garoff, S., Przybycien, T.M., Tilton, R.D. 2016. Enabling Marangoni Flow at Air-Liquid Interfaces Through Deposition of Aerosolized Lipid Dispersions. Journal of Colloid and Interface Science 484:270-278.

89) Nagle, J.F., Jablin, M.S., TRISTRAM-NAGLE, S. 2016. Sugar Does Not Affect the Bending and Tilt Moduli of Simple Lipid Bilayers. Chemistry and Physics of Lipids 196:76-80.

88) Nagle, J.F., Akabori, K., Treece, W., TRISTRAM-NAGLE, S. 2016. Determination of Mosaicity in Oriented Stacks of Lipid Bilayers. Soft Matter 12:1884-1891.

87) TRISTRAM-NAGLE, S. 2015. Use of X-Ray and Neutron Scattering Methods with Volume Measurements to Determine Lipid Bilayer Structure and Number of Water Molecules/Lipid. In Membrane Hydration, the Role of Water in the Structure and Function of Biological Membranes, Subcellular Biochemistry Vol. 71. Ed. E. Anibal Disalvo, Springer International Publishing AG, Switzerland.

86) Neale, C., Huang, K., Garcia, A.E., TRISTRAM-NAGLE, S. 2015. Penetration of HIV-1 Tat47-57 into PC/PE Bilayers Assessed by MD Simulation and X-ray Scattering. Membranes 5:473-494.

85) Qiu, Y., Mohin, J., Tsai, C.-H., TRISTRAM-NAGLE, S., Gil, R.R., Kowalewski, T., Noonan, K.J.T. 2015. Stille Catalyst-Transfer Polycondensation Using Pd-PEPPSI-Ipr for High-Molecular-Weight Regioregular Poly(3-hexylthiophene). Macromolecular Rapid Communications 36:840-844.

84) Reese, C.W., Strango, Z.I., Dell, Z.R., TRISTRAM-NAGLE, S., Harper, P.E. 2015. Structural Insights Into the Cubic-Hexagonal Phase Transition Kinetics of Monolein Modulated by Sucrose Solutions. Physical Chemistry Chemical Physics 17:9194-9204.

83) Ma, Y., Ghosh, S.K., Bera, S., Jiang, Z., TRISTRAM-NAGLE, S., Lurio, L.B., Sinha, S.K. 2015. Accurate Calibration and Control of Relative Humidity Close to 100% by X-Raying a DOPC Multilayer. Physical Chemistry Chemical Physics 17:3580-3576.

82) Nagle, J.F., Jablin, M.S., Tristram-Nagle, S., Akabori, K. 2015. What Are the True Values of the Bending Modulus of Simple Lipid Bilayers? Chemistry and Physics of Lipids 185:3-10.

81) Akabori, K., Huang, K., Treece, B.W., Jablin, M.S., Maranville, B., Woll, A., Nagle, J.F., Garcia, A.E., TRISTRAM-NAGLE, S. 2014. HIV-1 Tat Membrane Interactions Probed Using X-ray and Neutron Scattering, CD Spectroscopy and MD Simulations. Biochimica et Biophysica Acta 1838:3078-3087. Supporting Information.

80) Boscia, A., Treece, B.W., Mohammadyani, D., Klein-Seetharaman, J., Braun, A.R., Wassenaar, T.A., Kloesgen, B., TRISTRAM-NAGLE, S. 2014. X-ray Structure, Thermodynamics, Elastic Properties and MD Simulations of Cardiolipin/Dimyristoylphosphatidylcholine Mixed Membranes. Chemistry and Physics of Lipids 178:1-10.

79) Boscia, A., Akabori, K., Benamram, Z., Michel, J.A., Jablin, M.S., Steckbeck, J.D., Montelaro, R.C., Nagle, J.F. and TRISTRAM-NAGLE, S. 2013. Membrane Structure Correlates to Function of LLP2 on the Cytoplasmic Tail of HIV-1 GP41 Protein. Biophysical Journal 105:657-555. Supporting Information.

78) Pogozheva, I.D., Tristram-Nagle, S., Mosberg, H.I. and Lomize, A.L. 2013. Structural Adaptations of Proteins to Different Biological Membranes. Biochimica et Biophysica Acta 1828:2592-2608. Supporting Information.

77) Hallinen, K., TRISTRAM-NAGLE, S., Nagle, J. F. 2012. Volumetric Stability of Lipid Bilayers. Phys. Chem. Chem. Phys. 14:15252-15457.

76) Pan, J., Heberle, F.A., TRISTRAM-NAGLE, S., Szymanski, M., Koepfinger, M., Katsaras, J., Kučerka, N. 2012. Molecular Structures of Fluid Phase Phosphatidylglycerol Bilayers as Determined by Small-Angle Neutron and X-ray Scattering. Biochimica Biophysica Acta 1818:2135-2148.

75) Raghunathan, M., Zubovski, Y., Venable, R.M., Pastor, R.W., Nagle, J.F. and TRISTRAM-NAGLE, S. 2012. Structure and Elasticity of Lipid Membranes with Genistein and Daidzein Bioflavinoids using X-ray Scattering and MD Simulations. Journal of Physical Chemistry B 116:3918-1927 (selected for cover image).

74) Braun, A.R., Sevcsik, E., Chin, P., Rhoades, E., TRISTRAM-NAGLE, S. and Sachs, J.N. 2012. α-Synuclein Induces Both Positive Mean Curvature and Negative Gaussian Curvature in Membranes. Journal of the American Chemical Society 134:2613-2620.

73) Shchelokovskyy, P., TRISTRAM-NAGLE, S. and Dimova, R. 2011. Effect of the HIV-1 Fusion Peptide on the Mechanical Properties and Leaflet Coupling of Lipid Bilayers. New J. Physics 13: 025004.

72)Uppamoochikkal, P., TRISTRAM-NAGLE, S. and Nagle, J.F. 2010. Orientation of Tie-Lines in the Phase Diagram of DOPC:DPPC:Cholesterol Model Biomembranes. Langmuir 22:17363-17368.

71) TRISTRAM-NAGLE, S., Chan, R., Kooijman, E., Qiang, W., Weliky, D.P. and Nagle, J.F. 2010. HIV Fusion Peptide Penetrates, Disorders and Softens T-cell Membrane Mimics. J. Mol. Biol. 402:139-153.

70)TRISTRAM-NAGLE, S., Kim, D., Akhunzada, N., Kučerka, N., Mathai, J.C., Katsaras, J., Zeidel, M. and Nagle, J.F. 2010. Structure and Permeability of Fully Hydrated DiphytanoylPC. Chem. Phys. Lipids 163:630-637.

69) Pan, J., TRISTRAM-NAGLE, S. and Nagle, J.F. 2009. Alamethicin Aggregation in Lipid Membranes. J. Membrane Biol. 231:11-27.

68) Pan, J., TRISTRAM-NAGLE, S. and Nagle, J.F. 2009. Effects of Cholesterol on Structural and Mechanical Properties of Membranes Depends on Lipid Chain Saturation. Phys. Rev. E 80:021931 (1-12).

67)Guler, S.D., Ghosh, D.D., Pan, J., Mathai, J.C., Zeidel, M.L., Nagle, J.F. and TRISTRAM-NAGLE, S. 2009. Effects of Ether vs. Ester Linkage on Lipid Bilayer Structure and Water Permeability. Chem. Phys. Lipids 160:33-44.

66) Pan, J., Tieleman, D.P., Nagle, J.F., Kucerka, N. and TRISTRAM-NAGLE, S. 2009. Alamethicin in Lipid Bilayers: Combined Use of X-ray Scattering and MD Simulations. Biochim. Biophys. Acta 1788:1387-1397.

65) Kučerka, N., Perlmutter, J. D., Pan, J., TRISTRAM-NAGLE, S., Katsaras, J. and Sachs, J. N. 2008. The Effect of Cholesterol on Short- and Long-Chain Monounsaturated Lipid Bilayers as Determined by Molecular Dynamics Simulations and X-ray Scattering. Biophys. J. 95:2792-2805.

64) Pan, J., Mills, T.T., TRISTRAM-NAGLE, S. and Nagle, J.F. 2008. Cholesterol Perturbs Lipid Bilayers Non-universally. Phys Rev. Lett. 100:198108.

63) Mills, T.T., Toombes, G.E.S., TRISTRAM-NAGLE, S., Smilgies, D-M., Feigenson, G.W. and Nagle, J.F. 2008. Order Parameters and Areas in Fluid-Phase Oriented Lipid Membranes Using Wide Angle X-ray Scattering, Biophys. J. 95: 669-681.

62) Mills, T.T., TRISTRAM-NAGLE, S., Heberle, F.A., Morales, N.F., Zhao, J., Wu, J., Toombes, G.E.S., Nagle, J.F. Nagle and Feigenson, G.W., 2008. Liquid-liquid Domains in Bilayers Detected by Wide Angle X-ray Scattering, Biophys. J. 95: 682-690.

61) Greenwood, A. I., Pan, J., Mills, T. T., Nagle, J. F., Epand, R. M. and TRISTRAM-NAGLE, S., 2008. CRAC Motif Peptide of the HIV-1 gp41 Protein Thins SOPC Membranes and Interacts with Cholesterol. Biochim. Biophys. Acta 1778:1120-1130.

60) Mathai, J.C., TRISTRAM-NAGLE, S., Nagle, J.F. and Zeidel, M.L., 2008. Structural Determinants of Water Permeability through the Lipid Membrane, J. Gen. Physiol. 131:69-76. Published online Dec. 17, 2007.

59) Nagle, J.F., Mathai, J.C., Zeidel, M.L. and Tristram-Nagle, S., 2008. Theory of Passive Permeability Through Lipid Bilayers, J. Gen. Physiol. 131:77-85. Published online Dec. 31, 2007.

58) Pan, J., TRISTRAM-NAGLE, S. and Nagle, J. F. 2008. Temperature Dependence of Structure, Bending Rigidity and Bilayer Interactions of DOPC Bilayers. Biophysical Journal J. 94:117-124.

57) TRISTRAM-NAGLE, S., 2007. Preparation of Oriented, Fully Hydrated Lipid Samples for Structure Determination Using X-ray Scattering, for *Methods in Molecular Biology 400 (Methods in Membrane Lipids)*, pp. 63-75, ed. Alex Dopico, Humana Press, Totowa, NJ.

56) TRISTRAM-NAGLE, S. and Nagle, J.F. 2007. HIV-1 Fusion Peptide Decreases Bending Energy, Promotes Curved Fusion Intermediates. Biophys. J. 93: 2048-2055.

55) Kučerka, N., TRISTRAM-NAGLE, S. and Nagle, J.F. 2006. Closer Look at Structure of Fully Hydrated Fluid Phase DPPC Bilayers. Biophysical Letters in Biophys. J. 90, L83-85.

54) Greenwood, A.I., TRISTRAM-NAGLE, S. and Nagle, J.F. 2006. Partial Molecular Volumes of Lipid and Cholesterol, Chemistry and Physics of Lipids 143:1-10.

53) Zhang, R., Bo, L., Iovu, M.C., Jeffries-EL, M., Sauvé, G., Cooper, J., Jia, S., Tristram-Nagle, S., Smilgies, D.M., Lambeth, D.N., McCullough, R.D. and Kowalewski, T. 2006. Nanostructure Dependence of Field-Effect Mobility in Regioregular Poly(3-hexylthiophene) Thin Film Field Effect Transistors. J. Am. Chem. Soc. 128:3480-3481.

52) Kučerka, N., TRISTRAM-NAGLE, S. and Nagle, J.F. 2006. Structure of Fully Hydrated Fluid Phase Lipid Bilayers with Monounsaturated Chains. J. Membrane Biol. 208:1-10.

51) Petrache, H.I., TRISTRAM-NAGLE, S., Harries, D., Kucerka, N., Nagle, J.F. and Parsegian, V.A. 2005. Swelling of Phospholipids by Monovalent Salt. J. Lipid Res. 47:302-309.

50) Chu, N., Kučerka, N., Liu, Y., TRISTRAM-NAGLE, S. and Nagle, J.F. 2005.

Anomalous Swelling of Lipid Bilayer Stacks Is Caused by Softening of the Bending

Modulus. Phys. Rev. E. 71:041904.

49 Kučerka, N., Liu, Y., Chu, N., Petrache, H.I., TRISTRAM-NAGLE, S. and Nagle, J.F.

2005. Structure of Fully Hydrated Fluid Phase DMPC and DLPC Lipid Bilayers Using

 X-Ray Scattering From Oriented Multilamellar Arrays and From Unilamellar Vesicles.

 Biophys. J. 88:2626-2637.

48) TRISTRAM-NAGLE, S., Lewis, R.N.A.H., Blickenstaff, J.W., DiPrima, M.,

Marques, B.F., McElhaney, R.N., Nagle, J.F. and Schneider, J.W. 2005.

Thermodynamic and Structural Characterization of Amino-Acid Linked Dialkyl

Lipids. Chem. Phys. Lipids 134:29-39.

47) Petrache, H.I., TRISTRAM-NAGLE, S., Gawrisch, K., Harries, D., Parsegian,

 V.A., and Nagle, J.F. 2004. Structure and Fluctuations of Charged Phosphatidyl-

 Serine Bilayers in the Absence of Salt. Biophys. J. 86:1574-1586.

46) TRISTRAM-NAGLE, S., and Nagle, J.F. 2003. Lipid Bilayers: Thermodynamics,

Structure, Fluctuations and Interactions. Chem. Phys. Lipids (Invited Summary

Of Avanti Award Talk) 127:3-14.

45) Eldho, N.V., Feller, S.E., TRISTRAM-NAGLE, S., Polozov, I.V., and Gawrisch,

K. 2003. Polyunsaturated Docosahexaenoic vs. Docosapentaenoic Acid- Differences

 Lipid Matrix Properties from the Loss of One Double Bond. Am. Chem. Soc.125:

 6409-6421.

44) TRISTRAM-NAGLE, S., Liu, Y., Legleiter, J. and Nagle, J.F. 2002. Structure of

Gel Phase DMPC Determined by X-Ray Diffraction. Biophys. J. 83:3324-3335.

43) Lyatskaya, Y., Liu, S., TRISTRAM-NAGLE, S., Katsaras, J. and Nagle, J.F. 2001.

Method for Obtaining Structure and Interactions from Oriented Lipid Bilayers.

Phys. Rev. E 63:011907[1-9].

42) Nagle, J.F. and TRISTRAM-NAGLE, S. 2000. Structure and Interactions of Lipid Bilayers: Role of Fluctuations in *Lipid Bilayers: Structure and Interactions*, Eds. J. Katsaras and T. Gutberlet, (Springer-Verlag’s Biological Physics Series, Berlin),

pp. 1-23.

41) Lewis, R.N.A.H., TRISTRAM-NAGLE, S., Nagle, J.F. and McElhaney, R.N. 2000. The Thermotropic Phase Behavior of Cationic Lipid Membranes. Biochim. Biophys. Acta 1510:70-82.

40) Nagle, J.F. and TRISTRAM-NAGLE, S. 2000. Structure of Lipid Bilayers.

Invited Review for Biochim. Biophys. Acta 1469:159-195.

39) Nagle, J.F. and TRISTRAM-NAGLE, S. 2000. Lipid Bilayer Structure. Current Opinion in Structural Biology 10:474-480.

38) Katsaras, J., TRISTRAM-NAGLE, S., Liu, Y., Headrick, R.L., Fontes, E., Mason, P.C. and Nagle, J.F. 2000. Clarification of the Ripple Phase of Lecithin Bilayers

Using Fully Hydrated, Aligned Samples. Phys. Rev. E 61:5668-5677.

37) Nagle, J.F., Liu, Y, TRISTRAM-NAGLE, S., Epand, R.M and Stark, R.E. 1999.

Re-Analysis of Magic Angle Spinning NMR Determination of Intercellular Waters. Biophys. J. 77:2062-2065.

36) TRISTRAM-NAGLE, S., Isaacson, Y., Lyatskaya, Y., Liu, Y., Brummond, K., Katsaras, J. and Nagle, J. F. 1999. Polymorphism in Myristoyl-Palmitoylphosphatidylcholine. Chem. Phys. Lipids 100:101-113.

35) TRISTRAM-NAGLE, S., Petrache, H.I. and Nagle, J.F. 1998. Structure and Interactions of Fully Hydrated Dioleoylphosphatidylcholine Bilayers. Biophys. J.

75:917-925 (56).

34) Petrache, H.I., TRISTRAM-NAGLE, S. and Nagle, J.F. 1998. Fluid Phase Structure of EPC and DMPC Bilayers, Chem. Phys. Lipids 95:83-94.

33) Nagle, J. F., Petrache, H.I., Gouliaev, N., TRISTRAM-NAGLE, S., Liu, Y.,

Suter, R.M. and Gawrisch, K. 1998. Multiple Mechanisms for Critical Behavior

in the Biologically Relevant Phase of Lecithin Bilayers. Phys. Rev. E. 58:7769-7776.

32) Petrache, H.I., Gouliaev, N., TRISTRAM-NAGLE, S., Zhang, R., Suter, R.M. and

Nagle, J. F. 1998. Interbilayer Interactions: High Resolution X-Ray Scattering Study.

Phys. Rev. E 57:7014-24.

31) Nagle, J. F., TRISTRAM-NAGLE, S., Takahashi, H. and Hatta, I. 1998. Comment

on DPPC Subgel Phase Formation Process. Euro. Phys. J. B1:339.

30) TRISTRAM-NAGLE, S., Petrache, H.I., Suter, R. M. and Nagle, J.F. 1998. Effect

of Substrate Roughness on (D)-Spacing Supports Theoretical Resolution of Vapor

Pressure Paradox. Biophys. J. 74:1421-1427.

29) TRISTRAM-NAGLE, S., Moore, T., Petrache, H. and Nagle, J.F. 1998. DMSO

Produces a New Subgel Phase in DPPC: DSC and X-Ray Diffraction Study. Biochim.

Biophys. Acta 1369:19-33.

28) Sun, W.-J., S. TRISTRAM-NAGLE, R.M. Suter and Nagle, J.F. 1996. Structure of

Gel Phase Saturated Lecithin Bilayers: Temperature and Chain Length Dependence.

Biophys. J. 71:885-891.

27) Sun, W.-J., S. TRISTRAM-NAGLE, R.M. Suter and NAGLE, J.F. 1996. Structure of

the Ripple Phase in Lecithin Bilayers. Proc. Natl. Acad. Sci. USA 93, 7008-7012.

26) Nagle, J.F., Zhang, R., TRISTRAM-NAGLE, S., Sun, W., Petrache, H. and Suter, R.M.

1996. X-ray Structure Determination of Lα-Phase DPPC Bilayers. Biophys. J. 70:1419.

25) Zhang, R., TRISTRAM-NAGLE, S., Sun, W., Headrick, R.L., Irving, T.C., Suter, R.M.

and Nagle, J.F. 1995. Small Angle X-Ray Scattering From Lipid Bilayers Is Well Described by Modified Caillé Theory, But Not by Paracrystalline Theory. Biophys. J.

70:349-357 (1996).

24) Sun, W., TRISTRAM-NAGLE, S., Suter, R.M. and Nagle, J.F. 1996. Anomalous

Phase Behavior of Long Chain Saturated Lecithin Bilayers. Biochim. Biophys. Acta

1279:17-24.

23) Zhang, R., Sun, W., TRISTRAM-NAGLE, S., Headrick, R.L., Suter, R.M. and Nagle,

J.F. 1995. Critical Fluctuations in Membranes. Phys. Rev. Lett. 74:2832-2835.

22) Suter, R. M., Zhang, R., Sun, W., TRISTRAM-NAGLE, S. and Nagle, J. F. 1995.

High Resolution Studies of Lipid Bilayers, CHESS Newsletter, 26-27.

21) McCullough, R.D., Williams, S.P., TRISTRAM-NAGLE, S., Jayaraman, M., Ewbank, P.C. and Miller, L. 1995. The First Synthesis and New Properties of Regioregular, Head-to-tail Coupled Polythiophenes. Synthetic Metals 69:279-282.

20) TRISTRAM-NAGLE, S. and Dowd, S. 1994. X-Ray Diffraction Study of Three

19F-Labeled Dimyristoylphosphatidylcholines. J. Phys. Chem. 98:4469-4472.

19) McCullough, R.D., Williams, S.P., Jayaraman, M., Reddinger, J., Miller, L. and

TRISTRAM-NAGLE, S. 1994. Synthesis and Physical Properties of Self-Orienting

Head-to-Tail Polythiophenes. Material Research Society Symp. Proc. 328:215-220.

18) Sun, W.J., Suter, R.M., Knewtson, M.A., Worthington, C.R., TRISTRAM-NAGLE, S.,

Zhang, R. and Nagle, J.F. 1994. Order and Disorder in Fully Hydrated Unoriented

Bilayers of Gel Phase DPPC. Phys. Rev. E. 49:4665-4676.

17) TRISTRAM-NAGLE, S., Sun, W.-J., Suter, R.M. and Nagle, J.F. 1994. Kinetics of

Subgel Formation in DPPC: X-Ray Diffraction Study Proves Nucleation-Growth

Hypothesis. Biochim. Biophys. Acta 1191:14-20.

16) McCullough, R.D., TRISTRAM-NAGLE, S., Williams, S.P., Lowe, R.D. and Jayaraman,

M. 1993. Self-Orienting Head-to-Tail Poly(3-alkylthiophenes): New Insights on

Structure-Property Relationships in Conducting Polymers. J. Amer. Chem. Soc.

115:4910-4911.

15) TRISTRAM-NAGLE, S., Zhang, R., Suter, R.M., Worthington, C.R., Sun, W.-J. and

Nagle, J.F. 1993. Measurement of Chain Tilt Angle in Fully Hydrated Bilayers of Gel

Phase Lecithins. Biophys. J. 64:1097-1109.

14) McCullough, R.D., Lowe, R.D., Jayaraman, M., Ewbank, P.C., Anderson, D.L. and TRISTRAM-NAGLE, S. 1993. Synthesis and Physical Properties of Regiochemically

Well-Defined Head-to-Tail Poly(3-Alkylthiophenes). J. Syn. Met. 55-57:1198-1203.

13) TRISTRAM-NAGLE, S. and Wingert, L.M. 1990. A Thermotropic Study of 1-Deoxy-

1-(N)-methyloctanamido)-D-glucitol (MEGA-8) Using Microscopy, Calorimetry and X-Ray Diffraction, Mol. Cryst. Liq. Cryst. 188:41-56.

12) Kennedy, C.L., Zanapolidou, H.R., Sagar, S., TRISTRAM-NAGLE, S.A. and Domach,

M.M. 1989. Microcalorimetry, Fluorescence, and Fractionation Study of Yeast Alcohol Dehydrogenase: Stability and Heterogeneity Implications, Biotechnol. Prog. 5, 164-171.

11) Wiener, M.C., TRISTRAM-NAGLE, S., Wilkinson, D.A., Campbell, L.E. and Nagle, J.F.

1988. Specific Volumes of Lipids in Fully Hydrated Bilayer Dispersions, Biochim. Biophys. Acta 938: 135-142.

10) TRISTRAM-NAGLE, S., Wiener, M.C., Yang, C.-P. and Nagle, J.F. 1987. Kinetics of

the Subtransition in Dipalmitoylphosphatidylcholine, Biochemistry 26:4288-4294.

9) TRISTRAM-NAGLE, S., Yang, C.-P. and Nagle, J.F. 1986. Thermodynamic Studies of Purple Membrane, Biochim. Biophys. Acta 854:58-66.

8) Nagle, J.F. and TRISTRAM-NAGLE, S. 1984. Elements of Proton Pump Models, in *Information and Energy Transduction of Biological Membranes*, eds. C.L. Bolis,

E.J.M. Helmreich and H. Passow (A.R. Liss, Inc., N.Y.), pp. 103-111.

7) Nagle, J.F. and TRISTRAM-NAGLE, S. 1983. Hydrogen Bonded Chain Mechanisms

for Proton Conduction and Proton Pumping, J. Membrane Biol. 74:1-14.

6) TRISTRAM-NAGLE, S. and Packer, L. 1981. Effects of Arginine Modification on

the Photocycle and Proton Pumping of Bacteriorhodopsin, Biochem. Intl. 3:621-628.

5) TRISTRAM, S.A. 1981. The Role of the Positively Charged Amino Acids in Bacteriorhodopsin, Ph.D. Dissertation, University of California, Berkeley, pp. 1-379.

4) Packer, L., Quintanilha, A.T., Carmeli, C., Sullivan, P.D., Scherrer, P., TRISTRAM, S.,

Herz, J., Pfeifhofer, A. and Mehlhorn, R.J. 1981. Molecular Aspects of Light-Induced

Uptake and Release of Protons by Purple Membranes, Photochem. Photobiol. 33:

575-585.

3) Sullivan, P.D., Quintanilha, A.T., TRISTRAM, S. and Packer, L. 1980. Isotope Effects and Activation Parameters for Chemically-Modified Bacteriorhodopsin, FEBS Lett. 117: 359-362.

2) Packer, L., TRISTRAM, S., Herz, J., Russell, C. and Borders, C. 1979. Chemical Modification of Purple Membranes: Role of Arginine and Carboxylic Acid Residues in Bacteriorhodopsin, FEBS Lett. 108:243-248.

1) Konishi, T., TRISTRAM, S. and Packer, L. 1979. The Effect of Cross-Linking on Photocycling Activity of Bacteriorhodopsin, Photochem. Photobiol. 29:353-358.