

PUBLICATIONS

1. Lipson, E. D., Boehm F., and Vanderleeden, J. C. 1971. Measurement of parity admixtures in nuclear forces in ^{180}Hf and ^{159}Tb . *Phys. Lett.* 35B:307-310.
2. Vanderleeden, J. C., Boehm, F., and Lipson, E. 1971. Experiments on parity non-conservation in nuclear forces II. Gamma transitions in ^{203}Tl and ^{75}As . *Phys. Rev.* C4:2218-2223.
3. Lipson, E. D., Boehm, F., and Vanderleeden, J. C. 1972. Experiments on parity non-conservation in nuclear forces III. Gamma transitions in ^{180}Hf , ^{159}Tb , ^{181}Ta , ^{203}Tl and ^{182}W . *Phys. Rev.* C5:932-941.
4. Lipson, E. D. and Vanderleeden, J. C. 1972. A Monte Carlo calculation of the analyzing efficiency of gamma ray circular polarimeters. *Nucl. Instr. and Meth.* 104:525-530.
5. Delbrück, M., Lipson, E., and Lipson, C. 1972. Anfänge der wahrnehmung (The beginnings of perception). *Mannheimer Forum.* 72:53-82.
6. Foster, K. W. and Lipson, E. D. 1973. The light growth response of *Phycomyces*. *J. Gen. Physiol.* 62:590-617.
7. Lipson, E. D. 1975. White noise analysis of *Phycomyces* light growth response system. I. Normal intensity range. *Biophys. J.* 15:989-1011.
8. Lipson, E. D. 1975. White noise analysis of *Phycomyces* light growth response system. II. Extended intensity ranges. *Biophys. J.* 15:1013-1031.
9. Lipson, E. D. 1975. White noise analysis of *Phycomyces* light growth response system. III. Photomutants. *Biophys. J.* 15:1033-1045.
10. Lipson, E. D. 1975. Identification of the light growth response system of *Phycomyces* by white noise stimulation. Proceedings of First Symposium on Testing and Identification of Nonlinear Systems, California Institute of Technology. pp. 301-315.
11. Hall, P. F., Lewis, J. L., and Lipson, E. D. 1975. The role of mitochondrial cytochrome P-450 from bovine adrenal cortex in side-chain cleavage of 20S,22R-dihydroxycholesterol. *J. Biol. Chem.* 250:2283-2286.
12. Lipson, E. D., Foster, K. W., and Walsh, M. P. 1976. A versatile pseudorandom noise generator. *IEEE Trans. Instrum. Meas.* 25:112-116.
13. Eslava, A. P., Alvarez, M. I., Lipson, E. D., Presti, D., and Kong, K. 1976. Recombination between mutants of *Phycomyces* with abnormal phototropism. *Mol. Gen. Genet.* 147:235-241.
14. Lipson, E. D. and Presti, D. 1977. Light-induced absorbance changes in *Phycomyces* photomutants. *Photochem. Photobiol.* 25:203-208.
15. Galau, G. A., Lipson, E. D., Britten, R. J., and Davidson, E. H. 1977. Synthesis and turnover of polysomal mRNAs in sea urchin embryos. *Cell* 10:415-432.
16. Harris, W. A., Ready, D. F., Lipson, E. D., Hudspeth, A. J., and Stark, W. S. 1977. Vitamin A deprivation and *Drosophila* photopigments. *Nature* 266:648-650.

17. Lipson, E. D. 1980. Sensory transduction in *Phycomyces* photoresponses. In: The Blue Light Syndrome. (H. Senger, editor) Springer-Verlag, Berlin-Heidelberg-New York, pp. 110-118.
18. Lipson, E. D., Terasaka, D. T., and Silverstein, P. S. 1980. Double mutants of *Phycomyces* with abnormal phototropism. *Mol. Gen. Genet.* 179:155-162.
19. Lipson, E. D. and Presti, D. 1980. Graphical estimation of cross sections from fluence-response data. *Photochem. Photobiol.* 32:383-391.
20. Lipson, E. D. and Terasaka, D. T. 1981. Photogeotropism in *Phycomyces* double mutants. *Exp. Mycol.* 5:101-111.
21. Lipson, E. D. 1983. Sensory information processing at the cellular level: The light response systems of *Phycomyces*. In: Radiation and Cellular Response (G. P. Scott and H. W. Wahner, eds.) The Iowa State University Press, Ames, Iowa, pp. 133-152.
22. Lipson, E. D., López-Díaz, I., and Pollock, J. A. 1983. Mutants of *Phycomyces* with enhanced tropisms. *Exp. Mycol.* 7:241-252.
23. López-Díaz, I. and Lipson, E. D. 1983. Genetic analysis of hypertropic mutants of *Phycomyces*. *Mol. Gen. Genet.* 190:318-325.
24. López-Díaz, I. and Lipson, E. D. 1983. Meiotic dysgenesis associated with behavioral mutants of *Phycomyces*. *Curr. Genet.* 7:313-322.
25. Lipson, E. D. and Block, S. M. 1983. Light and dark adaptation in *Phycomyces* light-growth response. *J. Gen. Physiol.* 81:845-859.
26. Lipson, E. D., Galland, P., and Pollock, J. A. 1984. Blue light receptors in *Phycomyces* investigated by action spectroscopy, fluorescence lifetime spectroscopy, and two-dimensional gel electrophoresis. In *Blue Light Effects in Biological Systems* (H. Senger, ed.) Springer-Verlag, Berlin-Heidelberg-New York. pp. 228-236.
27. Lipson, E. D. and Häder, D.-P. 1984. Video data acquisition for movement responses in individual organisms. *Photochem. Photobiol.* 39:437-441.
28. Galland, P., Pandya, A. and Lipson, E. D. 1984. Wavelength dependence of dark-adaptation in *Phycomyces* phototropism. *J. Gen. Physiol.* 84:739-751.
29. Galland, P. and Lipson, E. D. 1984. Photophysiology of *Phycomyces blakesleeianus*. *Photochem. Photobiol.* 40:795-800 (invited review article).
30. Pollock, J. A., Lipson, E. D., and Sullivan, D. T. 1985. Analysis of microsomal flavoproteins in *Phycomyces* sporangiophores: Candidates for the blue-light photoreceptor. *Planta* 163:506-516.
31. Galland, P. and Lipson, E. D. 1985. Modified action spectra of photogeotropic equilibrium in *Phycomyces blakesleeianus* mutants with defects in genes *madA*, *madB*, *madC*, and *madH*. *Photochem. Photobiol.* 41:331-335.
32. Galland, P. and Lipson, E. D. 1985. Action spectra for phototropic balance in *Phycomyces blakesleeianus*: dependence on reference wavelength and intensity range. *Photochem. Photobiol.* 41:323-329.

33. Pollock, J. A., Lipson, E. D., and Sullivan, D. T. 1985. Electrophoretic analysis of proteins from night-blind mutants of *Phycomyces*. *Biochem. Genet.* 23:379-390.
34. Pollock, J. A. and Lipson, E. D. 1985. A flavoprotein in *Phycomyces blakesleeanus* with short fluorescence lifetime. *Photochem. Photobiol.* 41:351-354.
35. Galland, P., Palit, A., and Lipson, E. D. 1985. *Phycomyces*: Phototropism and light-growth response to pulse stimuli. *Planta* 165:538-547.
36. Reddy, V., Galland, P., and Lipson, E. D. 1985. A new allele with abnormal cyclic-AMP phosphodiesterase activity in *Phycomyces*. *Mol. Gen. Genet.* 201:124-125.
37. Garcés, R., Pollock, J. A., and Lipson, E. D. 1985. Examination of *Phycomyces blakesleeanus* for nitrate reductase as a possible blue light photoreceptor. *Plant Science*: 40:173-177.
38. Garcés, R., Chmielewicz, C., and Lipson, E. D. 1986. *Phycomyces*: A new gene for a flavoprotein with a covalently linked cofactor. *Mol. Gen. Genet.* 203:341-345.
39. Horwitz, B., Trad, C. H., and Lipson, E. D. 1986. Modified light-induced absorbance changes in *dimY* photoresponse mutants of *Trichoderma*. *Plant Physiol.* 81:726-730.
40. Horwitz, B., Trad, C. H., and Lipson, E. D. 1986. Differential spectrophotometry of *Phycomyces* mutants with abnormal photoresponses. *Photochem. Photobiol.* 44:207-214.
41. Pratap, P., Palit, A., and Lipson, E. D. 1986. System analysis of *Phycomyces* light-growth response with sum-of-sinusoids test stimuli. *Biophys. J.* 50:645-651.
42. Pratap, P., Palit, A., and Lipson, E. D. 1986. System analysis of *Phycomyces* light-growth response: Wavelength and temperature dependence. *Biophys. J.* 50:653-660.
43. Palit, A., Pratap, P., and Lipson, E. D. 1986. System analysis of *Phycomyces* light-growth response: Photoreceptor and hypertropic mutants. *Biophys. J.* 50:661-668.
44. Poe, R. C. and Lipson, E. D. 1986. System analysis of *Phycomyces* light-growth response with Gaussian white noise test stimuli. *Biol. Cybern.* 55:91-98.
45. Poe, R. C., Pratap, P., and Lipson, E. D. 1986. System analysis of *Phycomyces* light-growth response: Single mutants. *Biol. Cybern.* 55:99-104.
46. Poe, R. C., Pratap, P., and Lipson, E. D. 1986. System analysis of *Phycomyces* light-growth response: Double mutants. *Biol. Cybern.* 55:105-113.
47. Häder, D. P., and Lipson, E. D. 1986. Fourier analysis of angular distributions for motile microorganisms. *Photochem. Photobiol.* 44:657-664.
48. Galland, P. and Lipson, E. D. 1987. Blue-light reception in *Phycomyces* phototropism: evidence for two photosystems operating in low- and high-intensity ranges. *Proc. Natl. Acad. Sci. U.S.A.* 84:104-108.
49. Horwitz, B., Lipson, E. D. and Schechtman, M. G. 1987. *In vivo* absorption spectra of *Neurospora crassa* white collar photomutants. *Exp. Mycol.* 11:74-76.
50. Lipson, E. D. 1987. Blue light responses of *Phycomyces* sporangiophores. In: *From Photophysics to Photobiology* (A. Favre, R. Tyrrell, and J. Cadet, eds.), Elsevier, Amsterdam, pp. 191-201.

51. Cerdá-Olmedo, E. and Lipson, E. D., eds. 1987. *Phycomyces*. Cold Spring Harbor Laboratory, New York (430 pages).
52. Galland, P. and Lipson, E. D. 1987. Light physiology of *Phycomyces* sporangiophores. In: *Phycomyces* (E. Cerdá-Olmedo and E. D. Lipson, editors) Cold Spring Harbor Laboratory, New York, pp. 49-92.
53. Cerdá-Olmedo, E. and Lipson, E. D. 1987. A biography of *Phycomyces*. In: *Phycomyces* (E. Cerdá-Olmedo and E. D. Lipson, editors) Cold Spring Harbor Laboratory, New York, pp. 7-26.
54. Lipson, E. D. and Galland, P. 1987. Measurement of *Phycomyces* light responses. In: *Phycomyces* (E. Cerdá-Olmedo and E. D. Lipson, editors) Cold Spring Harbor Laboratory, New York, pp. 367-373.
55. Galland, P. and Lipson, E. D. 1987. Light calibrations and radiometric units. In: *Phycomyces* (E. Cerdá-Olmedo and E. D. Lipson, editors) Cold Spring Harbor Laboratory, New York, pp. 375-380.
56. Trad, C. H. and Lipson, E. D. 1987. Biphasic fluence-response curves and derived action spectra for light-induced absorbance changes in *Phycomyces* mycelium. *J. Photochem. Photobiol., B: Biology* 1:169-180.
57. Lipson, E. D. 1987. Blue light responses of *Phycomyces*. In: *Phytochrome and Photoregulation in Plants* (M. Furuya, ed.), Academic Press, pp. 305-314.
58. Senger, H. and Lipson, E. D. 1987. Problems and prospects of blue and ultraviolet light effects. In: *Phytochrome and Photoregulation in Plants* (M. Furuya, ed.), Academic Press, pp. 315-331.
59. Trad, C. H., Horwitz, B., and Lipson, E. D. 1988. Light-induced absorbance changes in extracts of *Phycomyces* sporangiophores: Modifications in night-blind mutants. *J. Photochem. Photobiol., B: Biology* 1:305-313.
60. Lipson, E. D. and Pratap, P. 1988. System analysis of *Phycomyces* light-growth response with Gaussian white-noise and sum-of-sinusoids test stimuli. *Annals Biomed. Eng.* 16:95-109.
61. Corrochano, L. M., Galland, P., Lipson, E. D., and Cerdá-Olmedo, E. 1988. Photomorphogenesis in *Phycomyces*: fluence-response curves and action spectra. *Planta* 174:315-320.
62. Palit, A., Pratap, P., and Lipson, E. D. 1989. System analysis of *Phycomyces* light-growth response: *madC*, *madG*, and *madH* mutants. *Biophys. J.* 55:519-526.
63. Alvarez, M. I., Eslava, A. P., and Lipson, E. D. 1989. Phototropism mutants of *Phycomyces blakesleeanus* isolated at low light intensity. *Exp. Mycol.* 13:38-48.
64. Galland, P., Corrochano, L. M., and Lipson, E. D. 1989. Subliminal light control of dark adaptation kinetics in *Phycomyces* phototropism. *Photochem. Photobiol.* 49:485-491.
65. Galland, P., Orejas, M., and Lipson, E. D. 1989. Light-controlled adaptation kinetics in *Phycomyces*: evidence for a novel yellow-light absorbing pigment. *Photochem. Photobiol.* 49:493-499.

66. Palit, A., Galland, P., and Lipson, E. D. 1989. High- and low-intensity photosystems in *Phycomyces* phototropism: effects of mutations in genes *madA*, *madB*, and *madC*. *Planta* 177:547-553.
67. Palit, A. and Lipson, E. D. 1989. System analysis of *Phycomyces* light-growth response in single and double night-blind mutants. *Biol. Cybern.* 60:385-393.
68. Trad, C. H. and Lipson, E. D. 1989. Electrophoretic analysis of proteins from *Phycomyces* mutants with abnormal tropisms. *Biochem. Genet.* 5/6:355-365.
69. Ensminger, P. A., Chen, X., and Lipson, E. D. 1990. Action spectra for photogravitropism of *Phycomyces* wild type and three behavioral mutants (L150, L152, and L154). *Photochem. Photobiol.* 51:681-687.
70. Bejarano, E. R., Avalos, J., Lipson, E. D., and Cerdá-Olmedo, E. 1990. Photoinduced accumulation of carotene in *Phycomyces*. *Planta* 183:1-9.
71. Ensminger, P. A., Schaefer, H. R., and Lipson, E. D. 1991. Action spectra of *Phycomyces* light-growth response. *Planta* 184:498-505.
72. Ensminger, P. A. and Lipson, E. D. 1991. Action spectra of the light-growth response in three behavioral mutants of *Phycomyces*. *Planta* 184:506-509.
73. Lipson, E. D. and Horwitz, B. A. 1991. Photosensory reception and transduction. In: *Sensory Receptors and Signal Transduction*. (J. Spudich and B. Satir, editors), (Modern Cell Biology, Vol. 7, B. Satir, series ed.) Wiley-Liss, New York, pp. 1-64.
74. Lipson, E. D. 1991. Action spectroscopy. In: *Biophysics of Photoreceptors and Photomovements in Microorganisms*. (Lenci, F., Ghetti, F., Colombetti, G., Häder, D.-P., and Song, P.-S., editors), Plenum, New York, pp. 293-309.
75. Lipson, E. D. 1991. Phototropism in fungi. In: *Biophysics of Photoreceptors and Photomovements in Microorganisms*. (Lenci, F., Ghetti, F., Colombetti, G., Häder, D.-P., and Song, P.-S., editors), Plenum, New York, pp. 311-325.
76. Horwitz, B. A., Amit, R., and Lipson, E. D. 1992. A fiber-optic ratio fluorimeter for mutant isolation. *Photochem. Photobiol.* 56:417-420.
77. Ensminger, P. A. and Lipson, E. D. 1992. Growth rate fluctuations in *Phycomyces* sporangiophores. *Plant Physiol.* 99:1376-1380.
78. Sineshchekov, A. V. and Lipson, E. D. 1992. Effect of calcium on dark adaptation in *Phycomyces* phototropism. *Photochem. Photobiol.* 56:667-675.
79. Chen, X., Xiong, Y., and Lipson, E. D. 1993. Action spectrum for subliminal light control of adaptation in *Phycomyces* phototropism. *Photochem. Photobiol.* 58:425-431.
80. Lipson, E. D. 1995. Action Spectroscopy. In: *Handbook of Organic Photochemistry and Photobiology* (Horspool, W. and Song, P.-S., editors), CRC Press, Boca Raton, pp. 1257-1266.
81. Catterall, S., Goldberg, M., Lipson, E., Middleton, A., and Vidali, G. Implementation of information technologies in the teaching of "Science for the 21st Century" *Int. J. Mod. Phys. C* 8:49-66, 1997.

82. Warner, S., Catterall, S., and Lipson E.D. Java simulations for physics education. 1997. *Concurrency: Practice and Experience*, 9:477-484.

MANUSCRIPTS IN PREPARATION

81. Chen, X., Sineshchekov, A. V., and Lipson, E. D. Effects of calcium and related agents on growth and phototropism in *Phycomyces* sporangiophores. Submitted to Plant Physiol.
82. Garnovskaya, M., and Lipson, E. D. Phosphodiesterase activity in *Phycomyces* sporangiophores.
83. Sineshchekov, A. V., Chen, X., Garnovskaya, M., and Lipson, E. D. Phototropism and light-growth response in *Phycomyces* following treatment with calcium and related agents.
84. Lipson, E. D. and Durant, D. L. Computerized real-time motion analysis of elongation and bending in *Phycomyces* sporangiophores.