

## **Dr.Michal Pudlak-Curriculum vitae**

### CURRICULUM VITAE

#### PERSONAL DATA:

Born at Poprad, Slovak Republic, 6-th of December, 1958, married, one children

#### INSTITUTIONAL AFFILIATION:

Senior Research Scientist,  
Institute of Experimental Physics,  
Slovak Academy of Sciences,  
Watsonova 47, 043 53 Košice, Slovakia

#### PROFESSIONAL EXPERIENCE:

- 1983 M.Sc. biophysics and chemical physics, Faculty of Mathematics and Physics, Charles University Prague, Czechoslovakia (now Czech Republic)
- 1987-1991 postgraduate student at Moscow State University, Faculty of Biology, Department of Biophysics. Supervisor: Prof.K.V.Shaitan.
- 1996 PhD condensed matter physics, Faculty of Sciences, Šafarik University, Košice, Slovakia

#### VISITING SCIENTIST

- Bogolyubov Laboratory of Theoretical Physics, Joint Institute for Nuclear Research, Dubna, Moscow region, Russia
- 1997 August-November
- 1998 April-July
- 1999 May-August
- 2000 May-August
- 2001 May-August

#### RESEARCH AND ACADEMIC POSITIONS

- 1984-1986 teaching at the Veterinarian University at Kosice
- 1986-1987 research scientist at the Biophysical Department of the Institute of Experimental Physics, Slovak Academy of Sciences, Kosice
- 1991-1999 research scientist at the Biophysical Department of the Institute of Experimental Physics, Slovak Academy of Sciences, Kosice
- 1999- senior research scientist at the Department of Theoretical Physics, Institute of Experimental Physics, Slovak Academy of Sciences, Kosice

#### PhD STUDENT

R.Pincak - current

### **List of publications:**

1. M.Pudlak,J.Hronek:A direct algebraic method of solving a nonlinear equation  
*acta physica slovacica* 42 (1992) 3.
2. M.Pudlak,K.V.Shaitan:The influence of the dissipation of the reaction heat on the electron transport  
*acta physica slovacica* 43 (1993) 34.
3. M.Pudlak, K.V.Shaitan:The influence of energy level fluctuation and acceptor local diffusion on electron transport in biological system  
*J.Biological Physics* 19 (1993) 39.
4. M.Pudlak:The influence of energy levels fluctuation on the electron transport in a weakly polar solvent  
*Czech.J.Phys.* 44 (1994) 153.
5. M.Pudlak:The influence of the molecular dynamics of exchanging groups on the

- electron transfer rate  
*Chem.Phys.Lett.* 221 (1994) 86.
6. M.Pudlak: Effect of the molecular dynamics of exchanging groups on electron transport. Stochastic Liouville equation approach.  
*Chem.Phys.Lett.* 235 (1995) 126.
  7. M.Pudlak: Nonadiabatic electron transport in a fluctuating medium  
*Czech.J.Phys.* 46 (1996) 47.
  8. M.Pudlak: Electron transfer controlled by conformational variations of a strongly dissipative system  
*Czech.J.Phys.* 48 (1998) 293.
  9. M.Pudlak: Electron transfer driven by conformational variations  
*J.Chem.Phys.* 108 (1998) 5621.
  10. M.Pudlak, V.A.Osipov: Low-angle disclination on elastic planes: a gauge theory approach  
*JINR Rapid Communications* 5 (1998) 5.
  11. M.Pudlak, V.A.Osipov: Disclination vortices in elastic media  
*Nonlinearity* 13 (2000) 459.
  12. R.Pinčák, M.Pudlak: Noise breaking the twofold symmetry of photosynthetic reaction centers: Electron transfer  
*Phys.Rev.E* 64 (2001) 031906.
  13. M.Pudlak, R.Pinčák: The role of accessory bacteriochlorophylls in the primary charge transfer in the photosynthetic reaction centers  
*Chem.Phys.Lett.* 342 (2001) 587.
  14. M.Pudlak: Primary charge separation in the bacterial reaction center: Validity of incoherent sequential model  
*J.Chem.Phys.* 118 (2003) 1876.
  15. V.A.Osipov, E.A.Kochetov, M.Pudlak: Electronic structure of carbon nanoparticles  
*JETP* 123, N1 (2003) 161.
  16. M.Pudlak, R.Pincak: Modeling charge transfer in the photosynthetic reaction center  
*Phys.Rev.E* 68 (2003) 061901.
  17. R.Pincak, M.Pudlak: Electron transfer and quantum yields of charge separation in bacterial photosynthetic reaction centers, in: *Mathematical Modeling & Computing in Biology and Medicine*, Ed. V.Capasso, The MIRIAM Project Series, ESCULANO Pub.Co., Bologna 2003, p.434-440.

Košice, January 7, 2004

Michal Pudlak