

PUBLICATIONS

1. **Hiroshi Ishikita**, Giulia Morra and Ernst-Walter Knapp
Biochemistry 42 (2003) 3882–3892
“Redox potential of quinones in photosynthetic reaction centers from *Rhodobacter sphaeroides*: dependence on protonation of Glu-L212 and Asp-L213”
2. **Hiroshi Ishikita** and Ernst-Walter Knapp
J. Biol. Chem. 278 (2003) 52002-52011
“Redox potential of quinones in both electron transfer branches of photosystem I”
3. **Hiroshi Ishikita** and Ernst-Walter Knapp
J. Am. Chem. Soc. 126, (2004) 8059-8064
“Variation of Ser-L223 hydrogen bonding with the Q_B redox state in reaction centers from *Rhodobacter sphaeroides*.”
4. **Hiroshi Ishikita**, Bernhard Loll, Jacek Biesiadka, Artur Galstyan, Wolfram Saenger and Ernst-Walter Knapp
FEBS Lett. 579 (2005) 712-716
“Tuning electron transfer by ester-group of chlorophylls in bacterial photosynthetic reaction center”
5. **Hiroshi Ishikita** and Ernst-Walter Knapp
J. Am. Chem. Soc. 127 (2005) 1963-1968
“Redox potentials of chlorophylls and β -carotene in the antenna complexes of photosystem II”
6. **Hiroshi Ishikita**, Bernhard Loll, Jacek Biesiadka, Wolfram Saenger and Ernst-Walter Knapp
Biochemistry 44 (2005) 4118-4124
“Redox potentials of chlorophylls in photosystem II reaction center”
7. **Hiroshi Ishikita** and Ernst-Walter Knapp
J. Biol. Chem. 280 (2005) 12446-12450
“Energetics of proton transfer pathways in reaction centers from *Rhodobacter sphaeroides*: Glu-H173 activated mutants”
8. **Hiroshi Ishikita** and Ernst-Walter Knapp
FEBS Lett. 579 (2005) 3190-3194
“Redox potential of cytochrome *c*550 in the cyanobacterium *Thermosynechococcus elongatus*”
9. **Hiroshi Ishikita** and Ernst-Walter Knapp
J. Am. Chem. Soc. 127 (2005) 14714-14720
“Control of quinone redox potentials in photosystem II: electron transfer and photoprotection”
10. **Hiroshi Ishikita** and Ernst-Walter Knapp
Biochemistry 44 (2005) 14772-14783
“Oxidation of the non-heme iron complex in photosystem II”

11. **Hiroshi Ishikita**, Wolfram Saenger, Bernhard Loll, Jacek Biesiadka, and Ernst-Walter Knapp
Biochemistry (2005) in press
“Energetics of proton exit pathway for water oxidation in Photosystem II”
12. **Hiroshi Ishikita** and Ernst-Walter Knapp
Proc. Natl. Acad. Sci. USA 102 (2005) 16215-16220
“Induced conformational changes upon Cd²⁺ binding at photosynthetic reaction centers”
13. **Hiroshi Ishikita**, Dietmar Stehlik, John Golbeck and Ernst-Walter Knapp
Biophys. J. (2006) in press
“Electrostatic influence of PsaC protein binding to the PsaA/PsaB heterodimer in Photosystem I”

(papers submitted)

14. **Hiroshi Ishikita** and Ernst-Walter Knapp
(submitted)
“Function of redox-active tyrosine in photosystem II”
15. **Hiroshi Ishikita**, Jacek Biesiadka, Bernhard Loll, Jan Kern, Klaus-Dieter Irrgang, Athina Zouni, Wolfram Saenger and Ernst-Walter Knapp
(submitted to *Nature Chem. Biol.*)
“Function of β -carotene near D1/CP47 proteins in photosystem II dimer”
16. **Hiroshi Ishikita** and Ernst-Walter Knapp
(submitted)
“Role of the non-heme iron complex in bacterial photosynthetic reaction center”
17. **Hiroshi Ishikita**, Jacek Biesiadka, Bernhard Loll, Wolfram Saenger, and Ernst-Walter Knapp
(submitted)
” Cationic state of accessory chlorophyll and electron transfer from pheophytin to quinone in photosystem II”

(a paper in preparation)

18. **Hiroshi Ishikita**, Wolfram Saenger, Jacek Biesiadka, Bernhard Loll, and Ernst-Walter Knapp
(in preparation)
“How nature steers chlorophyll oxidation power of P680, P700, P870 in photosynthesis”

PRESENTATION

1. “*the XIth International Congress of Quantum Chemistry 2003*”, Bonn, Germany, July 20–26, 2003: [Poster]
2. “*the 13th International Congress on Photosynthesis 2004*”, Montréal, Canada, Aug 29–Sep 3, 2004: [Selected Speaker+Poster]