# Ondrej Prasil

List of Publications by Year
in descending order



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|---|---|---|---|
| 112 papers | 5,350 citations | 87888 38 h-index | 91884 69 g-index |
| 120 all docs | 120 docs citations | 120 times ranked | 4915 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Measurements of variable chlorophyll fluorescence using fast repetition rate techniques: defining methodology and experimental protocols. Biochimica Et Biophysica Acta - Bioenergetics, 1998, 1367, 88-106. | 1.0 | 759 |
| 2 | HEAVY METALâ€INDUCED INHIBITION OF PHOTOSYNTHESIS: TARGETS OF IN VIVO HEAVY METAL CHLOROPHYLL FORMATION<sup>1</sup>. Journal of Phycology, 2002, 38, 429-441. | 2.3 | 250 |
| 3 | Elevated CO2enhances nitrogen fixation and growth in the marine cyanobacterium Trichodesmium. Global Change Biology, 2007, 13, 531-538. | 9.5 | 240 |
| 4 | IN SEARCH OF A PHYSIOLOGICAL BASIS FOR COVARIATIONS IN LIGHTâ€LIMITED AND LIGHTâ€SATURATED PHOTOSYNTHESIS<sup>1</sup>. Journal of Phycology, 2004, 40, 4-25. | 2.3 | 212 |
| 5 | Title is missing!. Photosynthesis Research, 1998, 58, 259-268. | 2.9 | 176 |
| 6 | HEAVY METAL-INDUCED INHIBITION OF PHOTOSYNTHESIS: TARGETS OF IN VIVO HEAVY METAL CHLOROPHYLL FORMATION1. Journal of Phycology, 2002, 38, 429-441. | 2.3 | 176 |
| 7 | Cyclic electron flow around Photosystem II in vivo. Photosynthesis Research, 1996, 48, 395-410. | 2.9 | 150 |
| 8 | Morphology, Ultrastructure and Life Cycle of Vitrella brassicaformis n. sp., n. gen., a Novel Chromerid from the Great Barrier Reef. Protist, 2012, 163, 306-323. | 1.5 | 148 |
| 9 | The Cyanobacterial Homologue of HCF136/YCF48 Is a Component of an Early Photosystem II Assembly Complex and Is Important for Both the Efficient Assembly and Repair of Photosystem II in Synechocystis sp. PCC 6803. Journal of Biological Chemistry, 2008, 283, 22390-22399. | 3.4 | 131 |
| 10 | Combined Effects of CO<sub>2</sub> and Light on the N<sub>2</sub>-Fixing Cyanobacterium Trichodesmium IMS101: Physiological Responses. Plant Physiology, 2010, 154, 334-345. | 4.8 | 131 |
| 11 | Nutrient limitation of primary productivity in the Southeast Pacific (BIOSOPE cruise). Biogeosciences, 2008, 5, 215-225. | 3.3 | 118 |
| 12 | Photochemical and Thermal Phases of Chlorophyll a Fluorescence. Photosynthetica, 1999, 37, 163-182. | 1.7 | 99 |
| 13 | Chlorophyll a Fluorescence in Aquatic Sciences: Methods and Applications. , 2010, , . | | 92 |
| 14 | The slow S to M fluorescence rise in cyanobacteria is due to a state 2 to state 1 transition. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 1237-1247. | 1.0 | 92 |
| 15 | Rapid growth rates of aerobic anoxygenic phototrophs in the ocean. Environmental Microbiology, 2007, 9, 2401-2406. | 3.8 | 91 |
| 16 | Predicting the Electron Requirement for Carbon Fixation in Seas and Oceans. PLoS ONE, 2013, 8, e58137. | 2.5 | 91 |
| 17 | Dynamics of photosystem II: mechanism of photoinhibition and recovery processes. , 1992, , 295-348. | | 90 |
| 18 | Iron limitation in the marine cyanobacterium Trichodesmium reveals new insights into regulation of photosynthesis and nitrogen fixation. New Phytologist, 2008, 179, 784-798. | 7.3 | 79 |

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|---|---|---|---|
| 19 | Toward a taxon-specific parameterization of bio-optical models of primary production: A case study in the North Atlantic. Journal of Geophysical Research, 2005, 110, . | 3.3 | 78 |
| 20 | The Exposed N-Terminal Tail of the D1 Subunit Is Required for Rapid D1 Degradation during Photosystem II Repair in Synechocystis sp PCC 6803. Plant Cell, 2007, 19, 2839-2854. | 6.6 | 77 |
| 21 | Diel variations in the photosynthetic parameters of Prochlorococcus strain PCC 9511: Combined effects of light and cell cycle. Limnology and Oceanography, 2005, 50, 850-863. | 3.1 | 67 |
| 22 | Spectral characteristic of fluorescence induction in a model cyanobacterium, Synechococcus sp. (PCC 7942). Biochimica Et Biophysica Acta - Bioenergetics, 2009, 1787, 1170-1178. | 1.0 | 63 |
| 23 | Inhibition of PS II photochemistry by PAR and UV radiation in natural phytoplankton communities. Photosynthesis Research, 1994, 42, 51-64. | 2.9 | 62 |
| 24 | Non-Photochemical Quenching in Cryptophyte Alga Rhodomonas salina Is Located in Chlorophyll a/c Antennae. PLoS ONE, 2012, 7, e29700. | 2.5 | 60 |
| 25 | Split Photosystem Protein, Linear-Mapping Topology, and Growth of Structural Complexity in the Plastid Genome of Chromera velia. Molecular Biology and Evolution, 2013, 30, 2447-2462. | 8.9 | 59 |
| 26 | Non-photochemical fluorescence quenching inChromera veliais enabled by fast violaxanthin de-epoxidation. FEBS Letters, 2011, 585, 1941-1945. | 2.8 | 57 |
| 27 | Light-induced dissociation of antenna complexes in the symbionts of scleractinian corals correlates with sensitivity to coral bleaching. Coral Reefs, 2012, 31, 963-975. | 2.2 | 54 |
| 28 | Synechocystis 6803 mutants expressing distinct forms of the Photosystem II D1 protein from Synechococcus 7942: relationship between the psbA coding region and sensitivity to visible and UV-B radiation. Biochimica Et Biophysica Acta - Bioenergetics, 2003, 1605, 55-66. | 1.0 | 53 |
| 29 | Toward autonomous measurements of photosynthetic electron transport rates: An evaluation of active fluorescenceâ€based measurements of photochemistry. Limnology and Oceanography: Methods, 2015, 13, 138-155. | 2.0 | 51 |
| 30 | Photosynthesis in Chromera velia Represents a Simple System with High Efficiency. PLoS ONE, 2012, 7, e47036. | 2.5 | 51 |
| 31 | Combined Effects of CO<sub>2</sub> and Light on the N<sub>2</sub>-Fixing Cyanobacterium Trichodesmium IMS101: A Mechanistic View. Plant Physiology, 2010, 154, 346-356. | 4.8 | 50 |
| 32 | Phycobilisome Mobility and Its Role in the Regulation of Light Harvesting in Red Algae. Plant Physiology, 2014, 165, 1618-1631. | 4.8 | 49 |
| 33 | Roadmaps and Detours: Active Chlorophyll-a Assessments of Primary Productivity Across Marine and Freshwater Systems. Environmental Science & Technology, 2018, 52, 12039-12054. | 10.0 | 49 |
| 34 | Three types of Photosystem II photoinactivation. Photosynthesis Research, 1990, 24, 89-97. | 2.9 | 47 |
| 35 | The development of microalgal biotechnology in the Czech Republic. Journal of Industrial Microbiology and Biotechnology, 2010, 37, 1307-1317. | 3.0 | 46 |
| 36 | Novel type of red-shifted chlorophyll a antenna complex from Chromera velia. I. Physiological relevance and functional connection to photosystems. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 734-743. | 1.0 | 46 |

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|---|---|---|---|
| 37 | Fast reactivation of photosynthesis in arctic phytoplankton during the polar night<sup>1</sup>. Journal of Phycology, 2018, 54, 461-470. | 2.3 | 43 |
| 38 | Mechanisms Modulating Energy Arriving at Reaction Centers in Cyanobacteria. Advances in Photosynthesis and Respiration, 2014, , 471-501. | 1.0 | 40 |
| 39 | Experimental and theoretical studies on the excess capacity of Photosystem II. Photosynthesis Research, 2002, 72, 271-284. | 2.9 | 39 |
| 40 | Photoacclimation of Dunaliella tertiolecta (Chlorophyceae) Under Fluctuating Irradiance. Photosynthetica, 2004, 42, 273-281. | 1.7 | 38 |
| 41 | Nitrogen deprivation strongly affects Photosystem II but not phycoerythrin level in the divinyl-chlorophyll b -containing cyanobacterium Prochlorococcus marinus. Biochimica Et Biophysica Acta - Bioenergetics, 2001, 1503, 341-349. | 1.0 | 37 |
| 42 | NITROGEN STRESS RESPONSE OFPROCHLOROCOCCUSSTRAIN PCC 9511 (OXYPHOTOBACTERIA) INVOLVES CONTRASTING REGULATION OFntcAANDamt11. Journal of Phycology, 2002, 38, 1113-1124. | 2.3 | 37 |
| 43 | Novel type of red-shifted chlorophyll a antenna complex from Chromera velia: II. Biochemistry and spectroscopy. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 802-810. | 1.0 | 37 |
| 44 | Effect of herbicide clomazone on photosynthetic processes in primary barley (Hordeum vulgare L.) leaves. Pesticide Biochemistry and Physiology, 2004, 78, 161-170. | 3.6 | 36 |
| 45 | Immobility of phycobilins in the thylakoid lumen of a cryptophyte suggests that protein diffusion in the lumen is very restricted. FEBS Letters, 2009, 583, 670-674. | 2.8 | 36 |
| 46 | The chlorophyll a fluorescence induction pattern in chloroplasts upon repetitive single turnover excitations: Accumulation and function of QB-nonreducing centers. Biochimica Et Biophysica Acta - Bioenergetics, 2006, 1757, 173-181. | 1.0 | 33 |
| 47 | Nitrogen and phosphorus limitation of oceanic microbial growth during spring in the Gulf of Aqaba. Aquatic Microbial Ecology, 2009, 56, 227-239. | 1.8 | 33 |
| 48 | Photochemical and photoelectrochemical quenching of chlorophyll fluorescence in photosystem II. Biochimica Et Biophysica Acta - Bioenergetics, 2009, 1787, 1468-1478. | 1.0 | 30 |
| 49 | Biophysical, Biochemical, and Physiological Characterization ofChlamydomonas reinhardtii Mutants with Amino Acid Substitutions at the Ala251 Residue in the D1 Protein That Result in Varying Levels of Photosynthetic Competence. Journal of Biological Chemistry, 1998, 273, 11082-11091. | 3.4 | 29 |
| 50 | Antenna ring around trimeric Photosystem I in chlorophyll b containing cyanobacterium Prochlorothrix hollandica. Biochimica Et Biophysica Acta - Bioenergetics, 2005, 1708, 1-5. | 1.0 | 27 |
| 51 | Single-Turnover Variable Chlorophyll Fluorescence as a Tool for Assessing Phytoplankton Photosynthesis and Primary Productivity: Opportunities, Caveats and Recommendations. Frontiers in Marine Science, 2021, 8, . | 2.5 | 27 |
| 52 | Effect of CO2, nutrients and light on coastal plankton. I. Abiotic conditions and biological responses. Aquatic Biology, 2014, 22, 25-41. | 1.4 | 27 |
| 53 | Seasonal changes of photosynthetic assimilation of Norway spruce under the impact of enhanced UV-B radiation. Plant Science, 1999, 142, 37-45. | 3.6 | 26 |
| 54 | Control of the maximal chlorophyll fluorescence yield by the Q<sub>B</sub> binding site. Photosynthetica, 2018, 56, 150-162. | 1.7 | 26 |

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|---|---|---|---|
| 55 | Quantifying Oxygen Management and Temperature and Light Dependencies of Nitrogen Fixation by Crocosphaera watsonii. MSphere, 2019, 4, . | 2.9 | 26 |
| 56 | Diel regulation of photosynthetic activity in the oceanic unicellular diazotrophic cyanobacterium Crocosphaera watsonii WH8501. Environmental Microbiology, 2018, 20, 546-560. | 3.8 | 25 |
| 57 | Emission spectroscopy and kinetic fluorometry studies of phototrophic microbial communities along a salinity gradient in solar saltern evaporation ponds of Eilat, Israel. Aquatic Microbial Ecology, 2009, 56, 285-296. | 1.8 | 25 |
| 58 | On the chlorophyllÂa fluorescence yield in chloroplasts upon excitation with twin turnover flashes (TTF) and high frequency flash trains. Photosynthesis Research, 2007, 93, 183-192. | 2.9 | 23 |
| 59 | An integrated study of photochemical function and expression of a key photochemical gene (psbA) in photosynthetic communities of Lake Bonney (McMurdo Dry Valleys, Antarctica). FEMS Microbiology Ecology, 2014, 89, 293-302. | 2.7 | 21 |
| 60 | Presence of state transitions in the cryptophyte algaGuillardia theta. Journal of Experimental Botany, 2015, 66, 6461-6470. | 4.8 | 21 |
| 61 | Community dynamics and function of algae and bacteria during winter in central European great lakes. Journal of Great Lakes Research, 2020, 46, 732-740. | 1.9 | 21 |
| 62 | Community composition and photophysiology of phytoplankton assemblages in coastal Oyashio waters of the western North Pacific during early spring. Estuarine, Coastal and Shelf Science, 2018, 212, 80-94. | 2.1 | 20 |
| 63 | Effect of CO2, nutrients and light on coastal plankton. II. Metabolic rates. Aquatic Biology, 2014, 22, 43-57. | 1.4 | 20 |
| 64 | High light acclimation of Chromera velia points to photoprotective NPQ. Photosynthesis Research, 2018, 135, 263-274. | 2.9 | 19 |
| 65 | Carbon use efficiencies and allocation strategies in Prochlorococcus marinus strain PCC 9511 during nitrogen-limited growth. Photosynthesis Research, 2017, 134, 71-82. | 2.9 | 18 |
| 66 | Carbon Transfer from the Host Diatom Enables Fast Growth and High Rate of N2 Fixation by Symbiotic Heterocystous Cyanobacteria. Plants, 2020, 9, 192. | 3.5 | 18 |
| 67 | Composition changes of phototrophic microbial communities along the salinity gradient in the solar saltern evaporation ponds of Eilat, Israel. Hydrobiologia, 2009, 636, 77-88. | 2.0 | 16 |
| 68 | Copper and iron metabolism in Ostreococcus tauri â€“ the role of phytotransferrin, plastocyanin and a chloroplast copper-transporting ATPase. Metallomics, 2019, 11, 1657-1666. | 2.4 | 16 |
| 69 | Quantitative models of nitrogen-fixing organisms. Computational and Structural Biotechnology Journal, 2020, 18, 3905-3924. | 4.1 | 16 |
| 70 | Integrity and Activity of Photosystem 2 Complexes Isolated from the Thermophilic Cyanobacterium Synechococcus Elongatus Using Various Detergents. Photosynthetica, 1999, 37, 183-200. | 1.7 | 15 |
| 71 | The photosynthesis of individual algal cells during the cell cycle of Scenedesmus quadricauda studied by chlorophyll fluorescence kinetic microscopy. Photosynthesis Research, 2005, 84, 113-120. | 2.9 | 15 |
| 72 | Regulation of photosynthesis during heterocyst differentiation in Anabaena sp. strain PCC 7120 investigated in vivo at single-cell level by chlorophyll fluorescence kinetic microscopy. Photosynthesis Research, 2013, 116, 79-91. | 2.9 | 15 |

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|---|---|---|---|
| 73 | Modeling of Chlorophyll a Fluorescence Kinetics in Plant Cells: Derivation of a Descriptive Algorithm. Advances in Photosynthesis and Respiration, 2009, , 125-149. | 1.0 | 15 |
| 74 | On the origin of the slow Mâ€“T chlorophyll a fluorescence decline in cyanobacteria: interplay of short-term light-responses. Photosynthesis Research, 2018, 136, 183-198. | 2.9 | 14 |
| 75 | Characterization of processes responsible for the distinct effect of herbicides DCMU and BNT on Photosystem II photoinactivation in cells of the cyanobacterium Synechococcus sp. PCC 7942. Photosynthesis Research, 2000, 63, 135-144. | 2.9 | 13 |
| 76 | The phycobilisomes of Synechococcus sp. are constructed to minimize nitrogen use in nitrogen-limited cells and to maximize energy capture in energy-limited cells. Environmental and Experimental Botany, 2018, 150, 152-160. | 4.2 | 13 |
| 77 | Spectroscopic Properties of Violaxanthin and Lutein Triplet States in LHCII are Independent of Carotenoid Composition. Journal of Physical Chemistry B, 2019, 123, 9312-9320. | 2.6 | 13 |
| 78 | The analysis of PS II photochemical activity using single and multi-turnover excitations. Journal of Photochemistry and Photobiology B: Biology, 2012, 107, 45-54. | 3.8 | 12 |
| 79 | Freshwater ice as habitat: partitioning of phytoplankton and bacteria between ice and water in central <scp>E</scp>uropean reservoirs. Environmental Microbiology Reports, 2015, 7, 887-898. | 2.4 | 10 |
| 80 | Heterogeneous nitrogen fixation rates confer energetic advantage and expanded ecological niche of unicellular diazotroph populations. Communications Biology, 2020, 3, 172. | 4.4 | 10 |
| 81 | Structure and function of photosynthetic systems studied by hole burning spectroscopy. Journal of Luminescence, 1991, 48-49, 295-298. | 3.1 | 9 |
| 82 | Acceleration of plastoquinone pool reduction by alternative pathways precedes a decrease in photosynthetic CO<sub>2</sub> assimilation in preheated barley leaves. Physiologia Plantarum, 2008, 133, 794-806. | 5.2 | 9 |
| 83 | Temporal Patterns and Intra- and Inter-Cellular Variability in Carbon and Nitrogen Assimilation by the Unicellular Cyanobacterium Cyanothece sp. ATCC 51142. Frontiers in Microbiology, 2021, 12, 620915. | 3.5 | 9 |
| 84 | On the polyphasic quenching kinetics of chlorophyll a fluorescence in algae after light pulses of variable length. Photosynthesis Research, 2013, 117, 321-337. | 2.9 | 8 |
| 85 | High photochemical trapping efficiency in Photosystem I from the red clade algae Chromera velia and Phaeodactylum tricornutum. Biochimica Et Biophysica Acta - Bioenergetics, 2017, 1858, 56-63. | 1.0 | 8 |
| 86 | Red-shifted light-harvesting system of freshwater eukaryotic alga Trachydiscus minutus (Eustigmatophyta, Stramenopila). Photosynthesis Research, 2019, 142, 137-151. | 2.9 | 8 |
| 87 | Impact of Increased Nutrients and Lowered pH on Photosynthesis and Growth of Three Marine Phytoplankton Communities From the Coastal South West Atlantic (Patagonia, Argentina). Frontiers in Marine Science, 2021, 8, . | 2.5 | 8 |
| 88 | PHOTOSYNTHETIC CHARACTERIZATION OF A MUTANT OF NANNOCHLOROPSIS DEFICIENT IN THE SYNTHESIS OF EICOSAPENTAENOIC ACID. Israel Journal of Plant Sciences, 1998, 46, 101-108. | 0.5 | 7 |
| 89 | The effect of environmental factors on fatty acid composition of Chromera velia (Chromeridae). Journal of Applied Phycology, 2017, 29, 1791-1799. | 2.8 | 7 |
| 90 | Effect of CO 2 enrichment on phytoplankton photosynthesis in the North Atlantic sub-tropical gyre. Progress in Oceanography, 2017, 158, 76-89. | 3.2 | 7 |

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|---|---|---|---|
| 91 | [15] Assessing the potential for chloroplast redox regulation of nuclear gene expression. Methods in Enzymology, 1998, 297, 220-234. | 1.0 | 6 |
| 92 | Light Harvesting by Long-Wavelength Chlorophyll Forms (Red Forms) in Algae: Focus on their Presence, Distribution and Function. Advances in Photosynthesis and Respiration, 2020, , 261-297. | 1.0 | 6 |
| 93 | Microscopic Measurements of the Chlorophyll a Fluorescence Kinetics. , 2010, , 91-101. | | 5 |
| 94 | Govindjee, an institution, at his 80th (really 81st) birthday in TÅ™eboÅˆ in October, 2013: a pictorial essay. Photosynthesis Research, 2014, 122, 113-119. | 2.9 | 5 |
| 95 | Complex Response of the Chlorarachniophyte Bigelowiella natans to Iron Availability. MSystems, 2021, 6, . | 3.8 | 5 |
| 96 | Comparison of photosynthetic performances of marine picocyanobacteria with different configurations of the oxygen-evolving complex. Photosynthesis Research, 2018, 138, 57-71. | 2.9 | 4 |
| 97 | Electron & Biomass Dynamics of Cyanothece Under Interacting Nitrogen & Carbon Limitations. Frontiers in Microbiology, 2021, 12, 617802. | 3.5 | 4 |
| 98 | Diffusional Interactions among Marine Phytoplankton and Bacterioplankton: Modelling H2O2 as a Case Study. Microorganisms, 2022, 10, 821. | 3.6 | 4 |
| 99 | Life at elevated CO<sub>2</sub>modifies the cell composition ofChromera velia(Chromerida). European Journal of Phycology, 2018, 53, 58-66. | 2.0 | 3 |
| 100 | The effect of light quality and quantity on carbon allocation in Chromera velia. Folia Microbiologica, 2019, 64, 655-662. | 2.3 | 3 |
| 101 | Photomorphogenesis in the Picocyanobacterium Cyanobium gracile Includes Increased Phycobilisome Abundance Under Blue Light, Phycobilisome Decoupling Under Near Far-Red Light, and Wavelength-Specific Photoprotective Strategies. Frontiers in Plant Science, 2021, 12, 612302. | 3.6 | 3 |
| 102 | Crocosphaeraas a Major Consumer of Fixed Nitrogen. Microbiology Spectrum, 2022, 10, . | 3.0 | 3 |
| 103 | Physiological and spectroscopical changes of the thermophilic cyanobacterium Synechococcus elongatus under iron stress and recovery culture. Acta Physiologiae Plantarum, 2021, 43, 1. | 2.1 | 2 |
| 104 | Quantifying Cyanothece growth under DIC limitation. Computational and Structural Biotechnology Journal, 2021, 19, 6456-6464. | 4.1 | 2 |
| 105 | Crocosphaera watsonii. Trends in Microbiology, 2022, 30, 805-806. | 7.7 | 2 |
| 106 | Ivan ÅetlÃk. Photosynthetica, 2009, 47, . | 1.7 | 1 |
| 107 | Comparing pulse amplitude modulated (PAM) fluorometry with radiocarbon technique for determination of inorganic carbon fixation in Chlorella vulgaris (Trebouxiophyceae, Chlorophyta). European Journal of Phycology, 0, , 1-11. | 2.0 | 1 |
| 108 | Does growth rate affect diatom compositional response to temperature?. Phycologia, 2021, 60, 462-472. | 1.4 | 1 |

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|---|---|---|---|
| 109 | Presence of Flexible Non-Photochemical Quenching in Cryptophytes (Rhodomonas Salina). Advanced Topics in Science and Technology in China, 2013, , 489-492. | 0.1 | 1 |
| 110 | Flow cytometry-based study of model marine microalgal consortia revealed an ecological advantage of siderophore utilization by the dinoflagellate Amphidinium carterae. Computational and Structural Biotechnology Journal, 2022, 20, 287-295. | 4.1 | 1 |
| 111 | Hole-Burning Study of Energy Transfer in Antenna Proteins of Dunaliella Tertiolecta Affected by Iron-Limitation. Molecular Crystals and Liquid Crystals, 1996, 291, 111-117. | 0.3 | 0 |
| 112 | Special issue dedicated to the memory of Ivan ÅetlÃk. Folia Microbiologica, 2019, 64, 601-602. | 2.3 | 0 |