

ADVANCES IN MICROBIAL PHYSIOLOGY

EDITED BY ROBERT K. POOLE

C O N T E N T S

New insights into the molecular physiology of sulfoxide reduction in bacteria*Ulrike Kappler, Marufa Nasreen, and Alastair McEwan****Escherichia coli* DosC and DosP: a role of c-di-GMP in compartmentalized sensing by degradosomes***Marie-Alda Gilles-Gonzalez and Eduardo H.S. Sousa***A brief survey of the "cytochrome"***Catarina M. Paquete, G. Rusconi, A.V. Silva, R. Soares, and Ricardo O. Louro***Bacterial nitrous oxide respiration: electron transport chains and copper transfer reactions***Sascha Hein and Jörg Simon***Multiple degrees of separation in the central pathways of the catabolism of aromatic compounds in fungi belonging to the Dikarya sub-Kingdom***Tiago M. Martins, Celso Martins, and Cristina Silva Pereira***Dissimilatory reduction of sulfate and zero-valent sulfur at low pH and its significance for bioremediation and metal recovery***D. Barrie Johnson and Irene Sánchez-Andrea***The functional diversity of the prokaryotic sulfur carrier protein TsaA***Tomobisa Sebastian Tanabe, Silke Leimkühler, and Christiane Dabl***Roles and regulation of Spx family transcription factors in *Bacillus subtilis* and related species***Daniel F. Rojas-Tapias and John D. Helmann***Oxygen regulatory mechanisms of nitrogen fixation in rhizobia***Paul J. Ruttan and Philip S. Poole*

Cover illustration: The cover illustration shows the sulfur transfer network centred around IscS. IscS is the main L-cysteine desulfurase in the cell, providing the sulfur for Fe-S cluster assembly, Moco biosynthesis and thionucleosides in tRNA. The research questions are centred around the protein interaction network around IscS and the roles of TsaA in Fe-S cluster assembly, translation efficiency and general cellular pathways. For further details see the chapter by Christiane Dabl et al. in this volume.



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