

Contents

1	Psychrophiles as Sources for Bioinspiration in Biomineralization and Biological Materials Science	1
	Hermann Ehrlich and Anton Nikolaev	
2	Cold Biosilicification in Metazoan: Psychrophilic Glass Sponges	53
	Konstantin Tabachnick, Dorte Janussen and Larisa Menshenina	
3	Psychrophilic Calcification In Vitro	81
	Anton Nikolaev, Vasilii V. Bazhenov, Olga V. Frank-Kamenetskaya and Olga V. Petrova	
4	Endemism and Biodiversity of Hydrothermal Vent Fauna	97
	Sergey V. Galkin and Anatoly M. Sagalevich	
5	Comparative In Situ Microscopic Observation of Cellulose and Chitin in Hydrothermal Conditions	119
	Shigeru Deguchi	
6	Biopolymers for Biomimetic Processing of Metal Oxides	135
	Bruno Boury	
7	Thermogravimetric Analysis of Sponge Chitins in Thermooxidative Conditions	191
	Dawid Stawski	
8	Bioelectrometallurgy of Copper on Chitin	205
	Iaroslav Petrenko, Vasilii V. Bazhenov, Allison L. Stelling and Valentina Z. Kutsova	
9	Hydrothermal Synthesis of Advanced Chitin-Based Materials	223
	Marcin Wysokowski, Sabine Kaiser and Teofil Jesionowski	

10 Hydrothermal Synthesis of Spongin-Based Materials	251
Tomasz Szatkowski and Teofil Jesionowski	
Index	275

Extreme Biomimetics

Ehrlich, H. (Ed.)

2017, XIV, 276 p. 135 illus., 100 illus. in color.,

Hardcover

ISBN: 978-3-319-45338-5