

CONTENT

1. THE FUNCTIONAL FORMS OF BIOMINERALS	1
2. CRYSTALLOCHEMICAL STRATEGIES IN BIOMINERALIZATION	35
3. CARBONATE CALCIFICATION IN ALGAE – INITIATION AND CONTROL	63
4. MATRIX-CRYSTAL INTERACTIONS IN CaCO ₃ BIOMINERALIZATION	95
5. STEREOCHEMICAL AND STRUCTURAL RELATIONS BETWEEN MACROMOLECULES	133
6. IN VITRO STUDIES OF CALCIUM PHOSPHATE CRYSTALLIZATION	157
7. BIOCHEMICAL STUDIES OF VERTEBRATE TOOTH MINERALIZATION	189
8. CHEMICAL STUDIES OF BIOGENIC SILICA	223
9. FERRITIN: FUNCTION AND STRUCTURAL DESIGN OF AN IRON-STORAGE PROTEIN	257
10. FERRITIN AND HEMOSIDERIN: STRUCTURAL AND MAGNETIC STUDIES OF THE IRON CORE	295
11. BIOMINERALIZATION OF IRON IN MOLLUSCAN TEETH	345
12. MAGNETITE BIOMINERALIZATION IN UNICELLULAR MICROORGANISMS	389
13. STRUCTURAL AND ANALYTICAL STUDIES ON METAL ION-CONTAINING GRANULES	427
14. PROTON BEAM ANALYSIS IN STUDIES OF COMPOSITE BIOMINERALS	461
15. THE IMPORTANCE OF THE STUDY OF BIOMINERALS TO MATERIALS TECHNOLOGY	491