

TABLE OF CONTENTS

Preface	5
1 Introduction	11
1.1 Formularies	11
1.2 Codasyl nets	12
2 Description of operation logic	15
2.1 Definition of operation logic	15
2.2 Data sets of general knowledge database	17
2.3 Subgraphs of general knowledge database	20
2.4 A universal method for system description	21
2.5 Semantic language	23
3 Characteristics of universe	30
3.1 History of universe as program execution	30
3.2 List of chemical compounds and processes	32
4 Axioms about chemical processes	34
4.1 Radiation syntheses	34
4.2 Radiation decompositions	35
4.3 Special radiation processes	36
4.4 Enzymatic syntheses	37
4.5 Enzymatic decompositions	38
4.6 Special chemical processes	39
4.7 Oxygen decompositions	43
4.8 Energy inputs and outputs	44
4.9 Catchings by proteins of chemical compounds	44
4.10 Proteins activations and deactivations	46
4.11 Weak binding installations and destructions	47
5 How to receive chemical compounds and energy	48
5.1 How to receive glucose	48
5.2 How to receive ribose	49
5.3 How to receive deoxyribose	49
5.4 How to receive starch	50
5.5 How to receive cellulose	51
5.6 How to receive aminoacids	51

5.7	How to receive proteins	52
5.8	How to receive nucleotides	53
5.9	How to receive chitin	54
5.10	How to receive ADP	54
5.11	How to receive ATP	55
5.12	How to receive RNA's	55
5.13	How to receive DNA's	56
5.14	How to supply energy	58
5.15	How to store energy	59
6	Self-reproduction systems	61
6.1	How to realize self-reproduction processes	61
6.2	How to dispatch processes in self-reproduction system	63
7	Live individuals	65
7.1	Organic individuals	65
7.2	Protokaryotic and eukaryotic individuals	67
7.3	Sexuality	72
7.4	Multicellularity	75
8	Qualitative information processing of subjects	78
8.1	Consciousness	78
8.2	Semaphore registers of subject	84
8.3	Clause	91
9	Natural selection genetic learning process	93
9.1	Additional axioms about chemical processes	93
9.2	From inorganic solution to solution with randomly made simple organic compounds	95
9.3	From solution with randomly made simple organic compounds to solution with ribosomal DNA-RNA-PROTEIN transcriptions and with starch energy storage	95
9.4	From solution with ribosomal DNA-RNA-PROTEIN transcriptions and with starch energy storage to protobiontal individual	96
9.5	Semantic analysis of protobiontal DNA	97
9.6	From protobiontal individual to bacterial individual	102
9.7	From bacterial individual to cyanophytl individual	102
9.8	From bacterial individual to mitochondrial individual	103
9.9	From bacterial individual to preprotozoal individual	104
9.10	From preprotozoal individual to protozoal individual by symbiotic inclusion of mitochondrial individual	104
9.11	From protozoal individual to algal individual by symbiotic inclusion of cyanophytl individual	105
9.12	From protozoal individual to animal individual	106
9.13	From algal individual to plant individual	107
9.14	From animal individual to human individual	107

References

Index