

C O N T E N T S

Foreword	11
Preface	13
1. Angi Ecaterina, Bogdan Dorina, Polonyi Iolanda (Bucure ^o ti, Roumania) : Researches upon trace elements metabolic profile of some reproductive bulls	15
2. Bedrosian Ed., Gârban Z., Stupariu Al., Pârvu D., Urzică A., Găzdoiu ^at. (Timi ^o oara, Roumania): Peculiarities of the metallic composition of the seminal material and some biomedical implications	19
3. Benga Ileana, Benga Gh. (Cluj-Napoca, Roumania): Determination of Mg, Cu and Zn in the blood and cerebrospinal fluid of epileptic children	23
4. Bobcova Svetlana, Turta C., Rotari Yu., Lisii L. (Chi ^o inău, Moldavia) : Moessbauer study of rat's blood ferroproteines affected by external mechanical stress action	27
5. Bogdan Dorina, Bogdan A.T., Angi Ecaterina (Bucure ^o ti, Roumania): Biostimulation of semen production by supplementary trace elements fed in reproductive bulls diet	31
6. Botea Simona, Mocanu Mihaela, Burtea Carmen, Gatina Ruxandra, Chiripă Adina, Grosescu R. (Bucure ^o ti, Roumania) : The use of nuclear magnetic resonance technique for the determination of the sodium level in the tumors induced by benzo(a)pyrene in the animals treated with steroid hormones	35
7. Brad I., Cojocaru V., Iordache Ioana Luminipă (Craiova, Roumania) : The content of micro- and inframicroelements in the ash of fruits and stalks of Hypophae Rhamnoides (Seathorn)	39
8. Brad I., Pop L., Cojocaru V., Iordache Ioana Luminipă (Craiova, Roumania) : The content of metal elements in sandy soil of south Oltenia (normal and decovert) analysed through neutron activation	41
9. Bulgac I., Jovmir F., Turta C., Spataru F., ^aofransky V. (Chi ^o inău, Moldova): The heteronuclear carboxylates of d-elements with biological active ligands. Synthesis, structure and properties	43
10. Butnaru Gallia, Gergen I. (Timi ^o oara, Roumania): Al ³⁺ effect towards NO ₃ ⁻ assimilation in different cultivated cereals	47
11. Căpriipă Rodica, Căpriipă A., Contrea A. (Timi ^o oara, Roumania) : Metal binding and catalytic activity in bovin carbonic anhydrase	51
12. Chi^ou Iuliana, Olariu Lucia, Comlo^oan G. (Timi ^o oara, Roumania): Calcemia, magnesemia and phosphoremia in leucotic cows	55
13. Chi^ou Iuliana, Olariu Lucia, Comlo^oan G., Stana Letipă (Timi ^o oara, Roumania) : Variation concerning sideremy, transferrin and blood catalase amount, in leucotic cows	57
14. Chi^ou Iuliana, Trif Alexandra, Olariu Lucia (Timi ^o oara, Roumania): Organs iron distribution in rabbits receiving magnetic fluids	61
15. Contrea A., Bencsik I., Onaga C., Balmo^o I., Contrea M. (Timi ^o oara,	

Roumania): Distribution of trace minerals in body, blood serum, bone feathers and dejections in duckbroilers following nutrition with trace minerals chelated with polyphosphatic ligands	65
16. Cureă D. (București, Roumania): The use of "Microsol" - an original product based on trace elements -in controlling the retardation of growth and anaemia in piglets bred in industrial systems	69
17. Cureă D. (București, Roumania): Calcium and zinc plasma blood concentrations in hypothyreptic and parakeratosic piglets	73
18. Daranyi Gabriela, Drăgan P., Bucură V., Matusz Anca, Papoe Gabriela, Martony Livia, Urzică A., Gârban Z. (Timișoara, Roumania): Investigations on the composition and etiopathogeny of lithiasis XVI. Metallic composition of cystinic uroconcrements	77
19. Doroftei Sorina, Moise Gh., Pavkov Lucreția, Bușiu I., Kardos T., Radovan Maria, Tilvan Vasilica, Tilvan I. (Timișoara, Roumania): Influence of the systemic toxic and cancerigenic pollutants on the health state of the exposed population	81
20. Drăgan P., Gârban Z., Miclea F., Holban ăt. (Timișoara, Roumania): Investigations on the composition and etiopathogeny of lithiasis XVII. Metallic bioelements implicated in molecular pathology	85
21. Drăgan P., Daranyi Gabriela, Bucură V., Agapie D., Botoca M., Patroiu Popescu Delia, Holban Nina, Gârban Z. (Timișoara, Roumania): Investigations on the composition and etiopathogeny of lithiasis XVIII. Dyshomeostasy of some alkaline and alkaline-earth metals in pre-, post-surgical and ESWL treatment of urolithiasis	91
22. Galbács M.Z., Galbács G. (Szeged, Hungary): Use of the Mg(OH) ₂ method for reduction of the arsenic content of drinking water	95
23. Gârban Z. (Timișoara, Roumania): Homeorhesis in materno-fetal complex: the action of Zn ²⁺ and Cu ²⁺ ions on deoxiribonucleic acid biosynthesis	99
24. Gârban Z. (Timișoara, Roumania): Improvement of a biochemical investigation methodology for food additives which contain metals and some metallic compounds	103
25. Gârban Z., Paraschivoiu R., Borza Rodica, Roncov Fr., Jurebie Livia, Vincu Mirela, Boc Dana, Domnipeanu Camelia (Timișoara, Roumania) : Food additives with metal content in the countries of the European Economical Community	107
26. Gergen I., Gâtlan Doina, Avacovici Adina (Timișoara, Roumania) : Molybdenum complex capable to reduce in vitro NO ₃ ⁻ to NO ₂ ⁻	111
27. Ghergariu S., Roca R., Mezei Elisabeta, Toth E. (Cluj-Napoca, Roumania): Comparative epidemiology in an area with endemic goiter in humans and in animals	113
28. Glas K., Orlovius K. (Kassel, Germany): Effect of magnesium fertilization on yield and quality of sugar beet in Germany	117
29. Goian M., Janos Gh. (Timișoara, Roumania): Heavy metals in the soils of western Romania	121
30. Grzebicz W. (Poznan, Poland): Forms of copper in soils near a copper smelter	125
31. Haiduc I., Socaciu Carmen, Bara Adela, Silvestru C. (Cluj-Napoca, Roumania): Antitumor organo-metallics. In vitro effects of some diphenylantimony (III)Dithiophosphorus derivatives against lymphocytes and Ehrlich ascites tumor cells	129

32. Halpern M.J. (Monte de Caparica, Portugal): Magnesium physiopathology	133
33. Janos Gh., Gergen I., Gogoașă I. (Timișoara, Roumania): Distribution of the bioactive trace elements in Banat soils	137
34. Kiss A. S. (Szeged, Hungary): Enzyme activation by magnesium, the effect of calcium and mangan for this activation	141
35. Kiss A. S., Csikkel-Szolnoki Anna (Szeged, Hungary): Aluminium as toxic element for plants and human organism	145
36. Lăcătușu R., Răuță C., Ghelase Ileana, Cârstea Șt., Kovacsics Beatrice (București, Roumania): Abundance of heavy metals in the soil-plant systems strongly changed by man	149
37. Lungu Gr., Daranyi Gabriela (Timișoara, Roumania): Endocrino-metabolic consequences of the calcium deficiency in man's diet	153
38. Mandici Ljuba, Maksimovici R., Djurjic Vidosava (Belgrade, Yugoslavia): Nag-early sensitive parameter of mercury nephrotoxicity	157
39. Nechifor M., Dănilă Gh., Neughebauer B., Dobrescu G., Adomnicăi M., Costuleanu M., Teslaru E., Antonescu C., Negru A. (Iași, Roumania): The influence of zinc acexamate on experimental gastric ulcer in rats	159
40. Nechifor M., Rusu V., Neughebauer B., Mărgineanu A., Costuleanu M., Filip C., Teslaru E., Negru A. (Iași, Roumania): Plasmatic level of PGI ₂ , PGF _{2a} , insulin and estradiol...	163
41. Pais I. (Budapest, Hungary): New evaluation of the physiological role of trace elements	165
42. Papadopol Victoria, Palamaru Iliana, Tcaciu Carmen, Laszlo Sofia, Tuchendrea Eugenia, Neculce Alexandrina, Săpunaru Elena, Damian Otilia, Adam Cristina (Iași, Roumania) : Study of Zn status in a group of elderly men	171
43. Pădeanu I., Bura M., Avacovici Adina, Acatincăi S., Cziszter L., Calinovici Silvia Maria, Coveșean Elisabeta (Timișoara, Roumania) : The influence of some chelated metals on the bees' viability	175
44. Potkonjak Biljana, Bulat P., Djujici Ivana (Belgrade, Yugoslavia): Oxidative changes in the blood of workers in aluminium production	179
45. Pop Adelina, Sumalan R. (Timișoara, Roumania): Contributions to the study of mineral nutrition characteristic of some halophile ecoforms	183
46. Raica Alice, Popa I., Berinde Liliana, Muscoi M. (Timișoara, Roumania) : The relationship between hypomagnesiemia and mitral valve prolapse in children	187
47. Repanovici Rodica, Iliescu Rodica, Popa L.M. (București, Roumania): The effect of some complex derivatives with metallic ions on the transformation and transfection processes...	189
48. Rietz B., Heydrone K., Krarup-Hansen A. (Roskilde, Denmark): The determination of platinum content in human neural and muscle tissue by means of neutron activation analysis	193
49. Riviș I.A., Vâlculescu C., Gârban Z., Neamțu Lucia, Nicolescu C., Branea H., Coceală Liana, Avacovici Adina (Timișoara, Roumania): Implication of metal elements in the cardiovascular pathology	197

50. Roman L. (Cluj-Napoca, Roumania): Some actual aspects of metal trace analysis	201
51. Roman L., Florean Eugenia, Săndulescu R., Mirel S. (Cluj-Napoca, Roumania) : Preconcentration of Pb (II) with a 2-mercapto-5-phenylamino-1,3,4-thiadiazole loaded silicagel.....	205
52. Sabău I., Cristoi Lucrezia, Mălai Anca, Milanovici Elisabeta, Popa Nina, Reimer Liliana, Civic Claudia (Timișoara, Roumania): Aspects regarding diselectrolitemy in severe children enteritis	209
53. Sabău I., Micle Ioana, Nedici Monica (Timișoara, Roumania) : Etiopathogenic and clinico-biologic considerations of the adrenocortical insufficiency in newborn	213
54. Sabău I., Vilics Doina, Boieriu Estera, Babău Zinuca, Vlăduceanu Doina (Timișoara, Roumania): The variation of Na, K, Ca, Mg in the active period and in the resolution of nephrotic syndrome	215
55. Schneider Fr., Mederle Claudia, Maties Rosana, Mihala Gh.I. (Timișoara, Roumania) : Lithium compound influence of contention stress by rats	219
56. Șofranksy V., Bulgac I., Turta C. (Chișinău, Moldavia): The perspective using of cobalt, iron, a-dioximates in human and veterinary medicine	223
57. Șerban M., Ionescu Emanuela (București, Roumania): Purification and characterisation of glycylglycin dipeptidase by metal chelate affinity chromatography	227
58. Taylor A., Kilpatrick H. (Surrey, England): Measurement of tellurium in environmental and biological samples by hybride generation atomic absorption spectrometry ...	231
59. Toth L., Varga T., Juhasz M., Csikkeli-Szolnoki Anna, Behanyi Z., Meszaros T., Nemcsok J. (Szeged, Hungary): Cadmium induced metallothionein in carp	235
60. Trif Alexandra, Curtui V., Marcu A., Pârvu D., Bica Doina (Timișoara, Roumania): Preliminary researches regarding the utilisation of magnetic fluids ($M.F.gFe_2O_3$, 150 Gs) prepared in vegetable oil in therapeutics	239
61. Trif Mihaela, Mateizel Lidia, Mota Cecilia (București, Roumania): Transdermal delivery of copper acetylsalicylate included in liposomes	243
62. Vettori Carmen, Popa I., Urtiță Rodica, Berinde Liliana (Timișoara, Roumania) : Magnesium and the convulsive syndrom in children	247
63. Borozan S., Stojanovici S., Djurjic Vidosava (Belgrade, Yugoslavia): The influence of selenium on the erythrocyte metabolism in rats exposed to toluen. I. Synthesis of unusual hemoglobin modifications	249
64. Borozan S., Stojanovici S., Djurjic Vidosava, Tripkovic Z. (Belgrade, Yugoslavia) : The influence of selenium on the erythrocyte metabolism in rats exposed to toluene.II.Anti-oxidative response to oxidative stress	253
65. Djurić Ivana (Belgrade, Yugoslavia): Selenium and oxidative processes in vivo	257
66. Avram N., Serdaru Maria, Medrea N., Tănăsescu Veronica, Leahu Carmen (București, Roumania): Subclinical metabolic disorders in cattle and horses in a heavily heavy metals polluted area	261
67. Belashova I., Vitte P., Dobrovolsky L. (Kiev, Ukraine) : Unexpected danger of combined effect of lead and low level radiation exposures on rural workers of the Chernobyl region	262
68. Bogdan A.T. (București, Roumania): Agroecological and ecopathological	

significance of microelement content in fourages	263
69. Burguera Maria, Burguera J.L. (Merida, Venezuela): In vivo and on-line determination of cobalt in whole blood by microwave assisted mineralization and flow injection graphite furnace atomic absorption spectrometry	264
70. Caloianu Maria, Moldovan Lucia, Oancea Anca, Palicica R., Pop I (Timi ^o oara, Roumania).: Effect of collagen -Fe ³⁺ preparate on animal organism	265
71. Cristescu Al., Cristescu Carmen (Timi ^o oara, Roumania): Evaluation of the immunomodulation potential of Zn in cyclophosphamide induced immunodepression	266
72. Gherdan A., Trif Alexandra, Cristina R., Gehl J. (Timi ^o oara, Roumania): The values of sideremy, haemathocrit and haemoglobin in piglets, after the administration of some iron injectable products	267
73. Ghergariu S., Bale G., Muscă M., Kadar L. (Cluj-Napoca, Roumania) : Epidemiological, clinical and biochemical features in bovins in area of enzootic osteomalacia	268
74. Iovi A., Nimara Ana, Mateescu C., Martony Livia, Princz Ecaterina, Pintilie Tela, Iovi Corina, Negrea P. (Timi ^o oara, Roumania): The influence of the microelements from complex fertilisers with microelements, on the macroelements absorption by plants...	269
75. Laszlo Sofia, Papadopol Victoria, Palamaru Iliana, Tcaciuc Carmen, Tuchendrea Eugenia, Neculce Alexandrina, Popa Elena, Damian Otilia, Adam Cristina, Stentel Maria, Stratone Ana, Onete Rodica (Ia ^o i, Roumania): Serum levels of magnesium, zinc, ferrum and copper in relation with health state in a group of adolescent girls	270
76. Manolescu N., Mateescu C., Alexe S., Comi^oel V. (Bucure ^o ti, Roumania): New possibilities of studying cell modifications consecutive to the action of the pollutant factors	271
77. Marcu A., ^aincai Mariana, Botărel S., Pop Gh. (Timi ^o oara, Roumania): Observations reffering to alkaline phosphatase activity in placenta development at pigs and rodents	272
78. Medrea N., Crăiniceanu-Bianu Elisabeta (Timi ^o oara, Roumania) : Researches on the industrial pollution impact on horses population in the C.M. area	273
79. Miu N., Bizo A., Nargescu M., Silaghi V.D., Sabaceag S., Margescu C. (Cluj-Napoca, Roumania) : Changes in the mineral and oligoelements metabolism in the malabsorption syndrome of the child	274
80. Miu N., Silaghi V.D., Burlac L. (Cluj-Napoca, Roumania) : The implication of the magnesium defficiency in the physiopathology of renal tube	275
81. Miu N., Slăvescu L., Figan I., Andreica M., Farca^oG., Sur G., Silaghi V.D., Bizo A., Mare^oV., Margescu M., ^aerban C. (Cluj-Napoca, Roumania): The experience of the Pediatric Hospital II regarding the magnesium defficiency, in 25 years	276
82. Miu N., Slăvescu L., Figan I., ^aerban C. (Cluj-Napoca, Roumania) : The deficite of magnesium and bone disease in childhood	277
83. Niculescu V., Matusz P., Cioară Corina (Timi ^o oara, Roumania): Some considerations regarding the mechanical structure of the subthrocatheric region	278
84. Palamaru Iliana, Bălan Marioara, Manca^o Gabriela, Papadopol Victoria (Ia ^o i, Roumania): Biochemical changes induced by experimental exposing to nickel	279

85. Popa G., Copil A., Miu N. (Cluj-Napoca, Roumania) : The conduct of serum copper in some malignancies in children	280
86. Serdaru Maria, Avram N. (Bucure ^o ti, Roumania): Blood serum, organs, tissues and feeds molybdenum colourimetric dosing	281
87. Silaghi V.D., Burlac L., Cotîrla V., Slăvescu L., Miu N. (Cluj-Napoca, Roumania): Kidney stones and magnesium deficiency in childhood	282
88. Silaghi V.D., Miu N. (Cluj-Napoca, Roumania): The therapy with magnesium, selenium and zinc in child's recurrent infection	283
89. Silaghi V.D., Slăvescu L., Figan I., Miu N., Cotîrla V. (Cluj-Napoca, Roumania): The magnesio-therapy in child's intoxication with D-vitamin	284
90. Skalny A. (Moscow, Russia) : Heavy metals in hairs of urban children	285
91. Skalny A., Menshikova M. (Moscow, Russia) : Copper in the environment and childrens' health...	286
92. Sur G., Burlac L., Andreica A., Silaghi V.D., Bica A., Matei L., Miu N. (Cluj-Napoca, Roumania): Implication of the magnesium in the atopic states of infant	287
93. "erban V., Băcanu Gh.S., Timar R., Negri^oanu Gabriela, Dabelea Dana (Cluj-Napoca, Roumania): The treatment of distal symmetric polyneuropathy with magnesium sulphate	288
94. "incai Mariana, Marcu A., Radbea G., Bolte S. (Timi ^o oara, Roumania): Some aspects referring to alkaline phosphatase activity of leucocytes in soft bone syndrom of pigs	289
95. "incai Mariana, Marcu A., Radbea G., Bolte S. (Timi ^o oara, Roumania) : Alkaline phosphatase activity in the osteolytic osteosarcom and in the mammary osteogen carcinosarcom in dog	290
96. Tomas E., Popescu Alexandrina, Ziwertz Alexandrina, Cristescu C., Tomas^at. : (Bucure ^o ti, Roumania) Studies of the mechanism of the antiviral activity of some symmetrical and asymmetrical triazine copper complexes.....	291
97. Trif Alexandra, Olariu Lucia, Mo^p T., Curtui V. (Timi ^o oara, Roumania): Morphoclinic, biochemic and haematologic aspects after the administration of magnetic fluids in experimental animals	292
98. Trif Alexandra, Trif R., Coman M., Gherdan A., Curtui V. (Timi ^o oara, Roumania) : Pateric status-consequences of iron compound intake	293
99. Turta C. (Chi ^o inău, Moldavia): The antitumor, antibacterial and antiviral activity of some Cu, Co, Pd, Pt, Mn, Zn coordination compounds	294
100. Vlad Mariana, Căseanu Elena, Uza G., Creteanu Emilia, Polinicenco C. (Timi ^o oara, Roumania): Effect of "cuprofilin" on experimental atherosclerosis	295
101. Zărnescu Otilia, Moldovan Lucia, Oancea Anca (Bucure ^o ti, Roumania): Obtaining and "in vivo" ovarian uptake of a Cs-Cu ²⁺ compound	296
102. Petrovici Iovana (Belgrade, Yugoslavia): Radiotherapy, selenium and biochemical changes in blood in young patients with malignant neoplasmas	297
Retrospectives	299
Authors index	307