Publications of V. Zagrebaev at the end of 2011


149. True ternary fission and quasi-fission of superheavy nuclear systems, A.V. Karpov, V.I. Zagrebaev and W. Greiner, EPJ Web of Conferences, 17 (2011) 10002.


144. True ternary fission of superheavy nuclei,
V. I. Zagrebaev, A. V. Karpov, Walter Greiner,

143. Formation of heavy and superheavy neutron rich nuclei,
V. I. Zagrebaev and Walter Greiner,

142. Giant nuclear systems of molecular type,
V. I. Zagrebaev and Walter Greiner, in "Clusters in Nuclei" (Ed. C.Beck),

141. Attempt to produce element 120 in the 244Pu + 58Fe reaction,

140. Generalized optical potential for weakly bound nuclei: Two-cluster projectiles,
A.S. Denikin, V.I. Zagrebaev, P. Descouvemont,

139. Production of new neutron–rich heavy nuclei,
V. I. Zagrebaev and Walter Greiner,

138. The extension of the Periodic System: superheavy – superneutronic,
W. Greiner and V.I. Zagrebaev,
Russian Chemical Reviews (Uspekhi Khimii), 78, No.12 (2009) 1089.

137. Production of new heavy isotopes in low-energy multinucleon transfer reactions,
V. I. Zagrebaev and Walter Greiner,

136. Clustering phenomena in fission and fusion processes of heavy nuclei,
V. I. Zagrebaev and Walter Greiner,

135. Synthesis of superheavy nuclei: A search for new production reactions,
V. I. Zagrebaev and Walter Greiner,

134. New way for the production of heavy neutron-rich nuclei.
V. I. Zagrebaev and Walter Greiner,

133. Understanding the barrier distribution function derived from backward-angle quasi-elastic scattering, V.I. Zagrebaev,
132. Molecular states in astrophysical processes of subbarrier fusion of neutron-rich nuclei, V.I. Zagrebaev and V.V. Samarin, Izv. RAN, 72, No.3 (2008) 274.


121. Quasi-molecular states of neutrons in dinuclear systems and their effect on fusion of heavy atomic nuclei, V.I. Zagrebaev, V.V. Samarin, Izv. RAN, 71, No.3 (2007) 401.

120. Giant quasi-atoms and superheavy nuclei produced in damped collisions of transactinides, Walter Greiner and V. I. Zagrebaev,
119. Collisions of transactinides: superheavy nuclei and giant nuclear molecules, 
V. I. Zagrebaev and Walter Greiner,

118. Role of neutrons in the fusion of nuclei, 
V.I. Zagrebaev, V.V. Samarin,

117. Synthesis of the isotope 282113 in the 237Np+48Ca fusion reaction, 
Zagrebaev, G. K. Vostokin, M. G. Itkis, R. A. Henderson, J. M. Kenneally, J. H. Landrum, 
K. J. Moody, D. A. Shaughnessy, M. A. Stoyer, N. J. Stoyer, and P. A. Wilk, 

116. Potential energy of a heavy nuclear system in fusion–fission processes, 
V. I. Zagrebaev, A. Karpov, Y. Aritomo, M. Naumenko and W. Greiner, 

115. Shell effects in damped collisions: a new way to superheavies, 
V. I. Zagrebaev and Walter Greiner, 

114. Potential energy of heavy nuclear system in low-energy fusion-fission processes, 
A.V. Karpov, V.I. Zagrebaev, Y. Aritomo, M.A. Naumenko, W. Greiner, 

113. Diabatic folding interaction potential of arbitrarily oriented deformed nuclei, 
M.A. Naumenko, A.V. Karpov, V.I. Zagrebaev, 

112. Superheavy nuclei and quasi-atoms produced in collisions of transuranium ions, 
V.I.Zagrebaev, Yu. Ts. Oganessian, M. G. Itkis, and Walter Greiner, 

111. Long-lived superheavy nuclei and giant quasi-atoms produced in damped collisions of 
transactinides, 
Walter Greiner and V. I. Zagrebaev, 

110. Use of time-dependent Schrodinger equation for analysis of nucleon collectivization in near-
barrier fusion of atomic nuclei, 
V.I. Zagrebaev and V.V. Samarin, 
Izv. RAN, 70, No.2 (2006) .

109. Deep sub-barrier fusion enhancement in the 6He + 206Pb reaction, 
Yu.E. Penionzhkevich, V.I. Zagrebaev, S.M. Lukyanov, and R. Kalpakchieva, 
108. Synthesis of the isotopes of elements 118 and 116 in the $^{249}$Cf and $^{245}$Cm+$^{48}$Ca fusion reactions,

107. Fusion-fission for superheavy ($Z \sim 110-126$) and super-superheavy ($Z \sim 160-180$) nuclear systems,
Walter Greiner and V. I. Zagrebaev,

106. Low-energy fusion-fission dynamics of heavy nuclear systems.
V. I. Zagrebaev and Walter Greiner,

105. Web knowledge base on nuclear physics of low and intermediate energies,
A.S. Denikin, A.P. Alekseev, V.I. Zagrebaev, M.A. Naumenko, V.V. Samarin,

104. Time-dependent quantum analysis of neutron transfer in heavy ion fusion reactions,
V.V. Samarin and V.I. Zagrebaev,

103. Unified consideration of deep inelastic, quasi-fission and fusion-fission phenomena,
V. I. Zagrebaev and Walter Greiner,

102. Nucleon transfer in processes of deep-inelastic scattering, quasifission, and fusion of heavy ions,
V.I. Zagrebaev, M.A. Naumenko and W. Greiner,

101. Coupled-channel analysis of initial reaction stage in synthesis of superheavy nuclei,
V.I. Zagrebaev and V.V. Samarin,
Izv. RAN, 69, No.11 (2005) 1825.

100. Synthesis of elements 115 and 113 in the reaction $^{243}$Am+$^{48}$Ca,

99. Elastic and inelastic scattering of $^6$Li on $^{12}$C target at 63 MeV,

98. Dissipative Nucleus-Nucleus Collisions and the Problem of Synthesis of Superheavy Elements,
M.A. Naumenko, V.I. Zagrebaev,

97. Heavy element research at Dubna,

96. Shell effects in fission and quasi-fission of heavy and superheavy nuclei,

95. Fusion-fission dynamics of super-heavy element formation and decay,
V.I. Zagrebaev,

94. Fusion-fission dynamics of super-heavy element formation and decay,
V.I. Zagrebaev,

93. Experiments on the synthesis of element 115 in the reaction 243Am(48Ca,xn) 291-x115,

92. Measurements of cross sections for the fusion-evaporation reactions 244Pu(48Ca,xn) 292-x114 and 245Cm(48Ca,xn)293-x116,
91. Near-barrier fusion of heavy nuclei: coupling of channels, 
V.I. Zagrebaev, V.V. Samarin, 

90. Sequential fusion: Sub-barrier fusion enhancement due to neutron transfer, 
V.I. Zagrebaev, 

89. Measurements of cross sections and decay properties of the isotopes of elements 112, 114, 
and 116 produced in the fusion reactions 233,238U, 242Pu, and 248Cm + 48Ca, 
Yu.Ts.Oganessian, V.K.Utyonkov, Yu.V.Lobanov, F.Sh.Abdullin, A.N.Polyakov, 
I.V.Shirokovsky, Yu.S.Tsyganov, G.G. Gulbekian, S.L. Bogomolov, B.N. Gikal, 
A.N.Mezentsev, S.Iliev, V.G.Subbotin, A.M. Sukhot, A.A. Voinov, G.V. Buklanov, 
K.Subotic, V.I.Zagrebaev, and M.G. Itkis, J.B. Patin, K.J. Moody, J.F. Wild, M.A. Stoyer, 
N.J. Stoyer, D.A. Shaughnessy, J.M. Kenneally, P.A. Wilk, R.W. Lougheed, R.I. Il'kaev, and 
S.P. Vesnovskii, 

88. Development of web knowledge base on nuclear physics, 
A.S. Denikin, A.P. Alekseev, V.I. Zagrebaev, M.A. Naumenko, V.V. Samarin, 

87. Multi-dimensional Langevin approach to description of near-barrier fusion and deep inelastic 
collisions of atomic nuclei, 
M.A. Naumenko, A.S. Denikin, V.I. Zagrebaev, 

86. Fission barriers and fission dynamics of superheavy nuclei, 
V.I. Zagrebaev, M.G. Itkis and Yu.Ts.Oganessian, 
New Projects and Lines of Research in Nuclear Physics, Messina (Italy), 2002, edited by 

85. Fusion-fission dynamics and perspectives of future experiments, 
V.I. Zagrebaev, M.G. Itkis, Yu.Ts. Oganessian, 

84. Sub-barrier fusion enhancement due to neutron transfer, 
V.I. Zagrebaev, 

83. New mechanism for the production of the extremely fast light particles in heavy-ion 
collisions in the Fermi energy domain, 
A.S. Denikin, V.I. Zagrebaev, 

82. Multidimensional langevin approach to description of near-barrier heavy-ion fusion and 
deep-inelastic collisions, 
M. A. Naumenko, A. S. Denikin, V. I. Zagrebaev, 

81. Synthesis of super-heavy nuclei: How accurately can we describe it and calculate the cross
sections?,
V.I. Zagrebaev, Y. Aritomo, M.G. Itkis, Yu.Ts. Oganessian, M. Ohta,

80. Fission barriers of superheavy nuclei,
M.G. Itkis, Yu.Ts. Oganessian, and V.I. Zagrebaev,

79. New approach to description of fusion-fission dynamics in super-heavy element formation,
V.I. Zagrebaev,

78. Comparative analysis of the mechanisms of fast-light-particle formation in nucleus-nucleus collisions at low and intermediate energies,
A.S. Denikin and V.I. Zagrebaev,

77. Fusion-fission dynamics and perspectives of super-heavy element formation,
V.I. Zagrebaev,

76. Results from the first 249Cf + 48Ca experiment, Yu.Ts.Oganessian, V.K.Utyonkov,
Yu.V.Lobanov, F.Sh.Abdullin, A.N.Polyakov, I.V.Shirokovsky, Yu.S.Tsyganov,
A.N.Mezentsev, S.Iliev, V.G.Subbotin, A.M. Sukhov, O.V. Ivanov, A.A. Voinov, K.Subotic,
V.I.Zagrebaev, M.G. Itkis, K.J. Moody, J.F. Wild, M.A. Stoyer, N.J. Stoyer, C.A. Laue,
D.A. Shaughnessy, J.B. Patin, and R.W. Lougheed,

75. Low energy study of clustering phenomena in light exotic nuclei,
V.I. Zagrebaev,

74. Fusion-fission dynamics of the synthesis of super-heavy nuclei,
V.I. Zagrebaev,

73. Synthesis of super-heavy nuclei: Nucleon collectivization as a mechanism for compound nucleus formation,
V.I. Zagrebaev,

72. Measurement of cross sections for the fusion-evaporation reactions 204,206,207,208Pb + 48Ca and 207Pb + 34S: Decay properties of the even-even nuclides 238Cf and 250No,
Yu.Ts.Oganessian, V.K.Utyonkov, Yu.V.Lobanov, F.Sh.Abdullin,A.N.Polyakov,
I.V.Shirokovsky, Yu.S.Tsyganov, A.N.Mezentsev, S.Iliev, V.G.Subbotin, A.M.Sukhov,
M.A.Stoyer, R.W.Lougheed,

71. Nucleon collectivization as the main mechanism of the fusion-fission dynamics,
V.I. Zagrebaev,

70. Mechanisms of light particle formation in nucleus-nucleus collisions,
A.Denkin, V. Zagrebaev,

69. Physics of light exotic nuclei,
V.I. Zagrebaev,
BgNS Transactions, 5, No.1 (2000) 166.

68. Borromean halo nuclei,
J.S. Vaagen, D.K. Gridnev, H. Heiberg-Andersen, B.V. Danilin, S.N. Ershov, V.I. Zagrebaev, I.J. Thompson, M.V. Zhukov and J.M. Bang,

67. Semiclassical analysis of few-nucleon bound systems,
A.S. Denikin, V.I. Zagrebaev,

66. "Di-neutron" configuration of 6He,
Yu.Ts. Oganessian, V.I. Zagrebaev, J.S. Vaagen,

65. Dynamics of two-neutron transfer reactions with the Borromean nucleus 6He,
Yu.Ts. Oganessian, V.I. Zagrebaev, J.S. Vaagen,

64. Nuclear Reactions Video (knowledge base on low energy nuclear physics),
V. Zagrebaev, A. Kozhin,

63. Two-neutron exchange observed in the 6He+4He reaction. Search for the "di-neutron" configuration of 6He,

62. Low-energy transfer reactions induced by Borromean nuclei,
V.I. Zagrebaev,

61. Production of high quality 6He beam and the two-neutron exchange observed in the 6He+4He reaction,

60. Low-energy nuclear reactions induced by loosely bound nuclei,
D.N.Syomkin, V.I. Zagrebaev,
59. Dynamics of near barrier fusion process and the fine structure of the barrier distribution function,
N. Nikolaeva, V. Samarin, V.I. Zagrebaev,
Heavy Ion Physics, Proc. of VI Int. School-Seminar, Eds. Yu.Ts.Oganessian,

58. Fluctuations and chaotic motion in collisions of light heavy ions: quasimolecular states,
A.Denikin, V. Zagrebaev,
Heavy Ion Physics, Proc. of VI Int. School-Seminar, Eds. Yu.Ts.Oganessian,

57. Dynamics of nuclear reactions with loosely-bound nuclei at near-barrier energies,
D.N. Semkin, V.I. Zagrebaev,

56. Near-barrier scattering and fusion of deformed nuclei: chaos, fluctuations, and nuclear quasi-
molecules,
A.S. Denikin, V.I. Zagrebaev,

55. Analysis of the “fine structure” and dynamics of near-barrier fusion reaction of atomic nuclei
under strong channel coupling condition,
V.I. Zagrebaev, N. Nikolaeva, V. Samarin,

54. Peculiarities of nuclear reactions induced by loosely bound nuclei at low energies,
A.N. Mihailov, D.N. Semkin, V.I. Zagrebaev,
Large-Scale Collective Motion of Atomic Nuclei, Eds. G.Giardina et al., World Scientific,

53. Fluctuations and chaotic motion in collisions of light heavy ions,
A. Denikin, V. Zagrebaev,
Large-Scale Collective Motion of Atomic Nuclei, Eds. G.Giardina et al., World Scientific,

52. Dynamics of near-barrier fusion processes and the fine structure of the barrier distribution
function,
N. Nikolaeva, V. Samarin, V. Zagrebaev,
Large-Scale Collective Motion of Atomic Nuclei, Eds. G.Giardina et al., World Scientific,
(1996) 726.

51. The investigation of very fast light particles emission and sub-threshold pion production in
heavy ion collisions at low and intermediate energies,
Zagrebaev,

50. Quantum dissipative tunnelling and neutron transfer in sub-barrier fusion reactions,
A.Yu. Kozhin, V.V. Samarin and V.I. Zagrebaev, 

49. Few-body molecular dynamics of fragmentation and transfer processes in nucleus-nucleus collisions, 
V.I. Zagrebaev, D.N. Semkin, 

48. Formation of light particles in nucleus-nucleus collisions at low energies, 
V.I. Zagrebaev, Yu.E. Penionzhkevich, 
Progress in Particle and Nuclear Physics, 35 (1995) 575.

47. Investigation of loosely-bound-ion induced nuclear reaction mechanisms, 
V.I. Zagrebaev, D.N. Semkin, 

46. Analysis of nuclear reactions induced by loosely bound projectiles within “few-body molecular dynamics”, 
D.N. Semkin, V.I. Zagrebaev, 

45. Nuclear friction: How it can be measured, 
V.I. Zagrebaev, 

44. Wave catastrophes appearing in nuclear particle scattering, 
V.I. Zagrebaev, 
Selected Topics of Nuclear Physics, JINR, Dubna, (1995) 36.

43. Parameterisation of complex turning points at semiclassical description of elastic scattering, 
V.I. Zagrebaev, D.N. Semkin, 

42. Channel coupling and dissipative response of simple quantum systems, 
V.I. Zagrebaev, V.V. Samarin, 

41. Nuclear clusters in dissipative medium, 
V.I. Zagrebaev, 

40. The mechanism of light particle formation and nucleus-nucleus interaction, 
V.I. Zagrebaev, 

39. Production of light particle in nucleus-nucleus collisions (experimental facts, theoretical models, possible experiments), 
V.I. Zagrebaev, Yu.E. Penionzhkevich, 


26. Deep inelastic transfer reactions as a new source of information about properties of atomic nuclei,


14. Semiclassical description of multi-step processes and including friction forces into formalism of quantum theory of collisions,
13. Theory of direct nuclear reactions within classical trajectory approximation,
   V.I. Zagrebaev,

12. Description of heavy-ion induced direct nuclear reactions within classical trajectory
    approximation,
   V.I. Zagrebaev,

11. Direct processes in heavy ion reactions,
   V.E. Bunakov and V.I. Zagrebaev,

10. Heavy ion stripping, break-up, and inelastic break-up reactions accompanying by alpha-
    particle emission,
   V.E. Bunakov and V.I. Zagrebaev,

9. Classical trajectory approximation for a wave function,
   V.I. Zagrebaev,

8. Direct mechanisms of fast light particle formation in heavy ion collisions,
   V.E. Bunakov and V.I. Zagrebaev,

7. Heavy-ion induced direct reactions as a source of fast light particles,
   V.E. Bunakov, V.I. Zagrebaev,

6. Application of distorted wave approach to analysis of deuteron break-up reaction,
   V.I. Zagrebaev,

5. Reaction of light particle throw-off in heavy ion collisions,
   V.E. Bunakov, V.I. Zagrebaev, A.A. Kolozhvari,

4. Role of the channels with rearrangement of particles in nucleon-nucleus optical model
   potential,
   V.I. Zagrebaev,
   Problemy Yadernoi Fiziki i Kosmicheskikh Luchei, 8 (1978) 131.

3. Role of break-up channels in deuteron-nucleus elastic scattering,
   V.I. Zagrebaev,

2. Resonance scattering of neutrons on odd nuclei and optical model potential,
   O.M. Knyazkov, V.I. Zagrebaev,