

PROGRAM of the SHS'2001 Symposium

February 17, Sunday - Sego Auditorium

9:30-10:30 Registration

10:30-13:00

Opening Ceremony
Welcoming speeches

Foreword

A.G. Merzhanov - Russia

(PL-1-210) SHS of Dense In situ Composites via Pressure Assisted Thermal Explosion: Experiment and Modeling

E. Gutmanas - Israel

Invited lecture

12:00-13:00

(IL-1-211)

Trends in Ceramic Materials Development into the Third Millennium

R. Brook - UK

13:00-14:30 Lunch

Minireviews-1

14:30-15:15

(MR-1-119)

Kinetics and Thermodynamics of SHS Reactions

J. Puszynski - USA

15:15-16:00

(MR-2-169)

SHS in Electric and Magnetic Fields

Yu.M. Maksimov - Russia

16:00-16:20 Coffee-break

Minireviews-2

16:20-17:05

(MR-3-176)

Mechanical Alloying in SHS Research

F. Bernard - France

17:05-17:50

(MR-4-171)

SHS-Produced Composite Materials

S. Yin - China

February 18, Monday - Hall #1

S-1. Combustion and Synthesis-1

9:00-9:30

(K-8-178)

Keynote Lecture

SHS of Complex Ceramic Materials and Their Properties

R. Pampuch, J. Lis - Poland

9:30-9:50

(O-1-60)

Chemical Activation of SHS of Aluminum and Titanium Nitrides

V. Rosenband, A. Gany - Israel

9:50-10:10

(O-1-25)

On Combustion Wave Structure at SHS of Composite Ceramics of BN-SiO₂

V.E. Loryan, I.P. Borovinskaya - Russia

10:10-10:30

(O-1-101)

The Synthesis of Sulfides in Combustion Regime

R.K. Tukhtaev, V.V. Boldyrev, A.I. Gavrilov, S.V.Larionov - Russia

10:30-10:50 Coffee-break

S-2. Combustion and Synthesis-2

10:50-11:10

(O-2-107)

The Role of Liquid- and Gas-Phase Constituents of the Organic SHS Mechanism in Formation of Piperazine Malonate Microstructure

E.G. Klimchuk, V.I. Ponomarev, A.G. Merzhanov - Russia

11:10-11:30

(O-2-12)

Self-Propagating High-Temperature Synthesis of Polymers of Acrylamide Complexes of Transient Metals

A.G. Merzhanov, A.M. Stolin, L.S. Stelmakh - Russia

11:30-11:50

(O-2-128)

Some Features for Increasing Stability of Single Crystal Growth at Plasma-Arc Melting of SHS Products and Reactive SHS Mixtures

Yu.A. Sapronov, M.A. Ponomarev - Russia

11:50-12:00 Technical interval

Invited lecture (Sego Auditorium)

12:00-13:00

(IL-2-219)

Inorganic Nanotubes and Inorganic Fullerene-like Materials from Layered Compounds: Synthesis, Properties and Applications

R. Tenne - Israel

13:00-15:30 Lunch and Poster Session 1

S-3. Nanomaterials

15:30-15:50

(O-3-92)

Theoretical and Technological Aspects of Synthesis of Nano- and Micro-Crystal Composite Powders and Prospects of Their Industrial Application

P.A. Vityaz, A.Ph. Ilyuschenko, A.V. Beliaev, T.L. Talaka - Belarus

15:50-16:10

(O-3-174)

Reactivity Study of a Dense Nanostructured MoSi₂ Elaborated from MAFAPA Process

Ch. Gras, E. Gaffet, J.P. Larpin, C. Valot,

Z.A. Munir, F. Bernard - France, USA

16:15-16:35 Coffee-break

February 18, Monday - Hall #2

S-4. Ceramics and Composites - 1

9:00-9:30

(K-2-189)

Keynote Lecture

Reactive Casting of Ceramic Composites

N. Claussen - Germany

9:30-9:50

(O-1-9)

SHS Fabrication of Alumina-Reinforced High-Temperature Alloys

N. Travitzky, N. Claussen, E.Y. Gutmanas - Germany, Israel

9:50-10:10

(O-1-135)

SHS of Titanium Silicides and Their Properties

M. Lopacinski, J. Lis, M. Cyganik, L. Chlubny - Poland

10:10-10:30

(O-1-197)

Fabrication of Ceramic-Metal Layered Composites by SHS/QP

Z.Y. Fu, W.M. Wang, H. Wang, Q.J. Zhang, R.Z. Yuan - China

10:30-10:50 Coffee-break

S-5. Gravity SHS

10:50-11:10

(O-2-6)

SHS of Oxide and Composite Materials under Centrifugal Forces

V.I. Yukhvid, V.N. Sanin, M.D. Nersesyan, D. Luss - Russia, USA

11:10-11:30

(O-2-182)

Gravity induced effects in SHS

H.E. Grigoryan, A.S. Rogachev, A.E. Sytshev, S.E.Zakiev, O.K.Kamynina - Russia

11:30-11:50

(O-2-146)

The Effect of Melt Infiltration in High-Gravity Fields

V.N. Sanin, V.I. Yukhvid, A.G. Merzhanov - Russia

11:50-12:00 Technical interval

Invited lecture (Sego Auditorium)

12:00-13:00

(IL-2-219)

Inorganic Nanotubes and Inorganic Fullerene-like Materials from Layered Compounds: Synthesis, Properties and Applications

R. Tenne - Israel

13:00-15:30 Lunch and *Poster Session 1*

15:15-16:15 *Round Table-3*

SHS Ceramics: Synthesis and Application

Organizers:

I.P. Borovinskaya (Russia)

R. Pampuch (Poland)

16:15-16:35 Coffee-break

February 18, Monday - Hall #3

S-6. *Combustion Theory and Modeling-1*

9:00-9:30

(K-13-38)

Keynote Lecture

On Spinning Modes of Gasless Combustion

L. Kagan, G. Sivashinsky - Israel, USA

9:30-9:50

(O-1-61)

Structure and Variability of Spinning Reaction Waves in Cylindrical Sample

T.P. Ivleva, A.G. Merzhanov - Russia

9:50-10:10

(O-1-50)

Modeling of Nonstationary Combustion Wave in Heterogeneous Systems

A.G. Merzhanov, P.M. Krishenik, K.G. Shkadinskii - Russia

10:10-10:30

(O-1-181)

Qualitative Analysis of Physical and Physicochemical Effects Leading to the Intrinsic Electrical Voltages in SHS-waves propagation fronts

I.A. Filimonov, N.I. Kidin - Russia

10:30-10:50 Coffee-break

S-7. SHS of Oxide Materials

10:50-11:10

(O-3-5)

Structural and Physicochemical Aspects of Iron by Chromium Substitution and the Effect of Magnetic Field in SHS-Produced Ferrites

M.V. Kuznetsov - Russia

11:10-11:30

(O-3-74)

Pressure-Assisted Reactive Processing of Mg-SiO₂ Powder Blends

I. Gutman, L. Klinger, I. Gotman, M. Shapiro - Israel

11:30-11:50

(O-3-204)

Nanoparticles of Oxides through Pyrophoric Decomposition of Metal-Organic Complexes

P. Pramanik, R. Pati, A. Sen - India

11:50-12:00 Technical interval

Invited lecture (Sego Auditorium)

12:00-13:00

(IL-2-219)

Inorganic Nanotubes and Inorganic Fullerene-like Materials from Layered Compounds: Synthesis, Properties and Applications

R. Tenne - Israel

13:00-15:30 Lunch and Poster Session 1

15:15-16:15 Round Table-2

Phase and Structure Formation in SHS Processes

Organizer:

A.S. Rogachev (Russia)

16:15-16:35 Coffee-break

February 19, Tuesday - Hall #1

S-8. Dynamics of Phase Formation

9:00-9:20

(O-2-175)

Mechanism of the SHS Reaction $\text{Nb}+\text{Al} \rightarrow \text{NbAl}_3$ Using Synchrotron

TRXRD Experiments Coupled with Infrared 2D Observations

V. Gauthier, J.P. Larpin, D. Vrel, E. Gaffet, F. Bernard - France

9:20-9:40

(O-2-177)

New Improvements of TRXRD Experiments at Lure on H10 Beamline

D. Vrel, S. Paris, N. Girodon-Boulandet, J.-F. Mazué, E. Couqueberg,

M. Gailhanou, D. Thiaudière, E. Gaffet, F. Bernard, J.-C. Gachon - France

9:40-10:00

(O-2-79)

Dynamics of Phase Formation During Combustion of the Ti-B and Ti-C Systems in Nitrogen and Air

D.Yu. Kovalev, V.M. Shkiro, V.I. Ponomarev - Russia

10:00-10:20

(O-2-218)

Microstructure and Mechanical Properties of IN-SITU NiAl-Based Composites Strengthened by TiC

J.T. Guo, C.Y. Cui, G.S. Li, D.T. Jiang - China

10:30-10:50 Coffee-break

S-9 Original SHS Technologies

10:50-11:10

(O-3-154)

Microwave SHS Synthesis of Silicon Carbide Submicron Powders

T. Chudoba, D. Kuzmenko, A. Presz, W. Lojkowski, J. Binner,

T. Cross - Poland, UK

11:10-11:30

(O-1-223)

SHS Reactive Joining

U. Admon, N. Frage and M.P. Dariel - Israel

11:30-11:50

(O-2-151)

Studies of Reaction and Solidification of Manufacture Process of Ceramic-Lined Composite Steel Pipes by SHS

S.-G. Zhang, X.-X. Zhou, D.-H. Qian - China

11:50-12:00 Technical interval

Invited lecture (Sego Auditorium)

12:00-13:00

(IL-3-220)

**Nanocrystalline Ceramics By Solid-State Thermolysis
of Metalorganic Polymers**

F. Aldinger, A. Zimmermann - Germany

13:00-15:30 Lunch and Poster Session 2

S-10. Functionally Graded SHS Materials

15:30-16:00

(K-3-195)

Keynote Lecture

Present Status and Trends of SHS FGM

C.C. Ge - China

16:00-16:20

(O-2-39)

**Peculiarities of the Functionally Graded Targets Formation in Combustion Wave
of the SHS-Systems with Working Layer Ti-Si-B, Ti-Si-C, Ti-B-N, Ti-Al-B, Ti-C**

*E.A. Levashov, B.R. Senatulin, A.S. Rogachev, A.E. Grigoryan,
J.J. Moore - Russia, USA*

16:20-16:40

(O-2-110)

**Functionally Gradient Materials in the Al_2O_3 -SiC-Ti₃SiC₂ System
and Their Characteristics**

M. Lopacinski, J. Lis - Poland

16:40-17:00 Coffee-break

17:00-18:00 Round Table-1.

Thermal Explosion

Organizers:

V.A. Barzykin (Russia)

I. Gotman (Israel)

February 19, Tuesday - Hall #2

S-11. Films and Coatings

9:00-9:20

(O-2-40)

**Structure and Properties of Multicomponent Thin Films Based
on the Systems Ti-Si-N and Ti-X-B-N (X=Al,Si or Cr) Deposited
by Magnetron Sputtering Using SHS-Targets**

*D.V. Shtansky, A.N. Sheveiko, E.A. Levashov, S.A. Kulinich,
J.J. Moore – Russia, USA*

9:20-9:40

(O-2-20)

Self-Propagating High-Temperature Synthesis and Solid-State Reactions in Thin Films

V.G. Miagkov, L.E. Bykova - Russia

9:40-10:00

(O-2-44)

Structure and Properties of SHIM-Alloys and ESA-Coatings Strongly Modified by Nanosized Particles

O.V. Malochkin, E.A. Levashov, A.E. Kudryashov, F. Gammel, R. Suchentrun - Russia, Germany

10:00-10:20

(O-2-232)

Some Features of Gasless Combustion and Product Structure Formation in the Nano-scale Multilayered Intermetallic Films

E.H. Grigoryan, N.G. Elistratov, D.Yu. Kovalev, A.G. Merzhanov, A.N. Nosyrev, V.I. Ponomarev, A.S. Rogachev, V.I. Khvesyuk, P.A. Tsygankov - Russia

10:30-10:50 Coffee-break

S-12. Ecology

10:50-11:10

(O-2-57)

The Using of SHS-Technology for Immobilization of Radioactive Wastes

T.V. Barinova, I.P. Borovinskaya, V.I. Ratnikov, T.I. Ignatjeva - Russia

11:10-11:30

(O-2-23)

Pollution-Free SHS Generator of Fire-Extinguishing Aerosol

A.P. Amosov, A.R. Samboruk, V.A. Rekshinsky, A.G. Makarenko, E.V. Kuznets - Russia

11:30-11:50

(O-3-73)

In Situ Synthesis of Oxide Ceramic Matrix Composites (CMC's)

Based on Powder Blends of Fly Ash with Magnesium and Aluminum

I. Gutman, I. Gotman, M. Shapiro - Israel

11:50-12:00 Technical interval

Invited lecture (Sego Auditorium)

12:00-13:00

(IL-3-220)

Nanocrystalline Ceramics By Solid-State Thermolysis of Metalorganic Polymers

F. Aldinger, A. Zimmermann - Germany

13:00-15:30 Lunch and Poster Session 2

S-13. Combustion Theory and Modeling-2

15:30-16:00

(K-5-179)

Keynote Lecture

Dynamics of Hot Spots in Solid Flame Propagation

B.J. Matkowsky - USA

16:00-16:20

(O-1-129)

Experimental and Theoretical Study of Solid Product
Microstructure Formation During SHS

A.S. Rogachev, S.A. Kirillov, I.M. Kotin - Russia, Belarus

16:20-16:40

(O-1-153)

Evolution of Routes to Chaos in Condensed Phase Combustion
with Melting

C.S. Raymond, A. Bayliss, B.J. Matkowsky, V.A. Volpert - USA

16:40-17:00 Coffee-break

17:00-18:00 Round Table-4

Gravitational SHS Technology

Organizer:

V.I. Yukhvid

February 20, Wednesday - Hall #1

S-14. Macrokinetics

9:00-9:30

(K-10-59)

Keynote Lecture

**Mutual Interdependence between SHS Reaction and Gas
Infiltration during Thermal Explosion**

K.G. Shkadinskii - Russia

9:30-9:50

(O-3-72)

Macrokinetic Laws of Activated Combustion of Silicon Nitride-Based
Composite Powders

H.L. Khachatryan, H.H. Nersisyan, S.L. Kharatyan - Armenia

9:50-10:10

(O-1-130)

The Laws of Activated Combustion Front Propagation
in SiO₂-Al-C System at Directed Gas Infiltration

*L.S. Abovyan, H.H. Nersisyan, S.L. Kharatyan, R. Orrù,
G. Cao - Armenia, Italy*

10:10-10:30 Coffee-break

S-15. Shock-Wave and Nano-scale Effects

10:30-10:50

(O-2-200)

Chemical and Structural Transformations in Shock-loaded Titanium-Carbon Powder Mixture

*Yu.A. Gordopolov, S.S. Batsanov, S.I. Gavrilkin,
A.Yu. Gordopolov - Russia*

10:50-11:10

(O-2-28)

On Theory of "Cold Ignition" of Combustion-Like Waves in Solid-Phase Reactions

A. Pumir, V.V. Barelko - France, Russia

11:10-11:30

(O-3-89)

On Combustion Behavior of Nano-Scale SHS Reactions

C.-C. Chen, M.-C. Chiu - Taiwan

11:30-11:40 Technical interval

Invited lecture (Sego Auditorium)

11:40-12:40

(IL-4-221)

Contaminants, Additives and Dopants in Modern Materials Science

R.W. Cahn - UK

12:40-14:00 Lunch

February 20, Wednesday - Hall #2

S-16. Electromagnetic Fields

9:00-9:30

(K-11-180)

Keynote Lecture

Electrothermal Explosion (ETE) Method to Study the Kinetics of Fast High-Temperature Reactions in Condensed Systems

A.S. Shteinberg - Russia

9:30-9:50

(O-1-102)

Electrophysic Peculiarities of SHS Processes in Metallic and Metal-Like Systems

*A.I. Kirdyashkin, Yu.M. Maksimov, V.S. Korogodov,
V.L. Polyakov, V.D. Kitler, V.V. Burkin - Russia*

9:50-10:10

(O-1-3)

Magnetic and Electric Fields Produced by SHS

*D. Luss, M.D. Nersesyan, J.R. Claycomb, J.T. Ritchie,
J.H. Miller, Jr., J.T. Richardson - USA, Russia*

10:10-10:30 Coffee-break

S-17. Heat Losses Effect

10:30-10:50

(O-1-18)

Generation of Reaction Spots in a Gasless Combustion Front under the Influence of Heat Losses

B.L. Kopeliovich - Belarus

10:50-11:10

(O-1-190)

Features of Compaction Kinetics of Powder Materials in Nonisothermal Conditions

L.S. Stelmakh, A.M. Stolin - Russia

11:10-11:30

(O-1-7)

Structure of Ti-Al Powder Mixture Synthesis Product Realised in Condition of Thermal Explosion with Varied Heat Removal

V.Y. Philimonov, V.V. Evstigneev - Russia

11:30-11:40 Technical interval

Invited lecture (Sego Auditorium)

11:40-12:40

(IL-4-221)

Contaminants, Additives and Dopants in Modern Materials Science

R.W. Cahn - UK

12:40-14:00 Lunch

February 20, Wednesday - Hall #3

S-18. Mechanochemistry

9:00-9:30

(K-12-198)

Keynote Lecture

SHS TiB₂ Based Multi Phase Ceramics and Composites

R.Z. Yuan (China)

9:30-9:50

(O-3-88)

The Application of Mechanical Activation to the Performance of Solid-State Combustion Regime in SHS-Systems

M.A. Korchagin, T.F. Grigorieva, B.B. Bokhonov,

A.P. Barinova, N.Z. Lyakhov - Russia

9:50-10:10

(O-3-91)

The Effect of Mechanical Activation on Self-propagating
High-temperature Synthesis of Barium Hexaferrite

*T.L. Talaka, A.V. Belyaev, A. Ilyushchenko, A. Letsko, M.V. Kuznetsov,
Yu.G. Morozov, Z. Fu, R.Z. Yuan - Belarus, Russia, China*

10:10-10:30 Coffee-break

S-19. Ceramics and Composites - 2

10:30-10:50

(O-1-225)

Effect of Hot-Spots and Substrates Composition on the Microstructure
of Powders Produced During MW-SHS of SiC

*D. Kuzmenko, T. Chudoba, W. Lojkowski, J. Binner,
T. Cross, D. Kolesnikov, E. Grzanka - Poland, UK*

10:50-11:10

(O-3-41)

Physical, Chemical and Technological Aspects for Application
of Novel SHS - Refractory Ceramic Materials

*M.R. Filonov, E.A. Levashov, I.P. Borovinskaya,
V.A. Bunin, A.N. Korshikov - Russia*

11:10-11:30

(O-1-231)

Synthesis of Dense Light Weight Al_3Ti/B_4C Composites
by Pressure-assisted Thermal Explosion

S. Zamir, I. Gotman, E.Y. Gutmanas - Israel

11:30-11:40 Technical interval

Invited lecture (Sego Auditorium)

11:40-12:40

(IL-4-221)

Contaminants, Additives and Dopants in Modern Materials Science

R.W. Cahn - UK

12:40-14:00 Lunch

February 21, Thursday - Sego Auditorium

S-20. Combustion Theory and Modeling-3

S-21. Structure Formation

9:00-9:30

(K-9-13)

Keynote Lecture

Critical Phenomena at Autowave Propagation

E.N. Rumanov - Russia

9:30-9:50
(O-1-19)
Novell Evolutionary Modeling of SHS Systems
S.A. Zakiev - Russia

9:50-10:10
(O-3-158)
Synthesis of Mg₂Si via Thermal Explosion Mode of SHS:
Experimental Observation and Modeling
D. Horvitz, L. Klinger, I. Gotman - Israel

10:10-10:30
(O-2-57)
Microstructure Formation Mechanism of TiO₂-B₂O₃-Mg
System during Combustion Synthesis
W. Wang, Z. Fu, H. Wang, R.Z. Yuan - China

10:30-10:50
(O-2-120)
Pressure-Assisted SHS Synthesis of Ti₂AlC and Ti₃Al_{1.1}C_{1.8}
Y. Khoptiar, I. Gotman, E.Y. Gutmanas - Israel

10:50-11:10 Coffee-break

Advanced Session
“Industrialization”

11:10-11:30
(O-4-141)
SHS Technology an Industrial Reality
J. Artieda, S. Carretero, N. Makhonin, D.H. Hilera - Spain

11:30-11:50
(O-4-29)
Catalytic Gas Nitriding of Metals and Alloys - 5 Years
of Scientific Development and Practical Application
V.Ya. Syropyatov, V.V. Barelko, V.M. Zinchenko, L.A. Bykov - Russia

11:50-12:10
(O-4-67)
SHS Regularities and Properties of TiC – SiC Composite Powder
and Compact Material
S.S. Mamyán, D.Yu. Belov, A.A. Boldin - Russia

12:10-12:30
(O-4-55)
Continuous SHS Technology and Properties of Soft Magnetic Ferrites
*P.B. Avakyan, M.D. Nersesyan, A.G. Merzhanov,
J.T. Richardson - Armenia, Russia, USA*

12:30-13:00 Closing Ceremony

13:00-14:30 Lunch

Poster Session 1 – February 18, Monday

(P-1-8) Investigation of SHS of Fine Thermal Structure by High-Speed Digital Infra-Red Imaging Method

V.V. Evstigneev, P.Y. Gulyaev, V.I. Yakovlev - Russia

(P-1-30) On a Theory of "Ignition" of Catalytic Combustion Reactions by Laser Beam

V. Barelko, K. Pribitkova - Russia

(P-1-45) Regularities of Mechanical Activation Effects on SHS-Process Characteristics

V.V. Kurbatkina, E.A. Levashov, M. Trtanj, M. Todorovich - Russia, Yugoslavia

(P-1-49) Regularities of Self-Propagating High-Temperature Synthesis of AlN without Additives

V.V. Zakorzhevsky, I.P. Borovinskaya, N.V. Sachkova - Russia

(P-1-54) Patenting in the Field of SHS

T.V. Bavina, L.V. Peresada, O.N. Chernenko, Yurkova L.A - Russia

(P-1-68) On Modeling of Ions Dynamics During SHS-Processes in Oxide Systems

V.A. Fedotov, Yu.G. Morozov, M.V. Kuznetsov - Russia

(P-1-69) Synthesis of Materials Based on Niobium Carbides, Borides and Nitrides and Study of Their Catalytic Properties

E.H. Grigoryan, A.S. Rogachev, H.E. Grigoryan, A. Gavriilidis, V.N. Borsh - Russia, UK

(P-1-70) On the Mechanisms of Chromium Carbides Synthesis by Activated SHS

Kh.V. Manukyan, S.L. Kharatyan, H.H. Nersisyan - Armenia

(P-1-75) Unstationary Combustion of SHS Systems with Melting Inert Component

V.G. Prokofiev, V.K. Smolyakov - Russia

(P-1-82) Analysis of the Critical Conditions of Ignition of Gas-Suspended Solid Fuel with a Heated Surface

B.S. Seplyarskii, T.P. Ivleva - Russia

(P-1-84) Investigation of Spark Ignition of the Gas-Suspended Solid Fuel via the Model of Spot Ignition

B.S. Seplyarskii, T.P. Ivleva - Russia

(P-1-85) Modeling of the Electrothermal Explosion in the Layered Ni-Al System

V.A. Gorelski, A. Yu. Smolin, A.S. Shteinberg - Russia

(P-1-86) Synthesis of Chemically Non-uniform Materials from a Homogeneous Green Mixture in the Thermal Explosion Mode

B.S. Seplyarskii, T.P. Ivleva, A.G. Merzhanov - Russia

(P-1-90)

Non-Steady-State Modes of Filtration Combustion

V.V. Grachev - Russia

- (P-1-99) Structural Formation of Functional Porous Materials in Combustion Processes of Metallothermic Systems
A.I. Kirdyashkin, R.A. Yusupov, Yu.M. Maksimov, V.D. Kitler - Russia
- (P-1-106) Self-Propagating High-Temperature Synthesis of Chromium Substituted HTSC $\text{RBa}_2\text{Cu}_{3-x}\text{Cr}_x\text{O}_{7-y}$ (R = Y; La; Nd; Sm; Yb)
M.V. Kuznetsov, Yu.G. Morozov, I.P. Parkin, Q.A. Pankhurst - Russia, UK
- (P-1-108) Percolation Combustion: Is It Possible in SHS?
O.S. Rabinovich, B.B. Khina, P.S. Grinchuk, A.V. Belyaev - Belarus
- (P-1-109) A "Micrometallurgical" Model of Phase and Structure Formation in SHS
B.B. Khina, O.S. Rabinovich, B. Formanek, A.V. Belyaev - Belarus, Poland
- (P-1-112) Combustion Model with an Electric Charge Formation
I. Filimonov, M. Nersesyan, D. Luss - Russia, USA
- (P-1-116) Possibility of Electrophysic SHS Phenomena Employment in High-Current Electronics
Yu.M. Maksimov, A.I. Kirdyashkin, V.S. Korogodov, V.A. Polyakov - Russia
- (P-1-144) Anomalous Behavior of High-Temperature Resistivity in Nitride SHS-Ceramics
A.V. Karpov, I.P. Borovinskaya, Yu.G. Morozov, V.A. Bunin - Russia
- (P-1-152) Frontal Polymerization Caused by Centrifugal Field
V. Briskman, K. Kostarev, A. Shmyrov - Russia
- (P-1-155) New Non-Copper-Oxide HTSC on the Basis of Magnesium Diboride Obtained by Thermoinitiated SHS Method
P.I. Antipov, N.S. Ovanesyan, S.G. Bakhtamov, V.I. Kulakov, Yu.G. Morozov - Russia
- (P-1-157) SHS Wave Propagation in Mg-Si System
D. Horvitz, I. Gotman - Israel
- (P-1-159) Combustion Synthesis of Al_2O_3 -Ti Aluminide Composites: Effect of Starting Composition
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