

# Contents

Vol. 29, No. 1, 2020

Nanocrystalline Cobalt Ferrite Powders by Spray Solution Combustion Synthesis <i>R. V. Minin, V. A. Zhuravlev, O. V. Lapshin, V. I. Itin, and V. A. Svetlichnyi</i>	1
Shock-Induced Chemical Transformations in Ti–B–Ni and Ti–C–Ni Powder Blends <i>I. V. Saikov, V. G. Salamatov, A. Yu. Malakhov, I. E. Semenchuk, I. D. Kovalev, N. I. Mukhina, S. A. Seropyan, and P. Yu. Gulyaev</i>	10
Preparation of Ni <sub>3</sub> Al by Thermal Explosion under Pressure: Influence of Precompaction Pressure and Delay Time for Compaction Pressure <i>E. N. Boyangin, K. O. Akimov, and M. G. Figurko</i>	15
Preparation of Green Mixtures for SHS Reactions: Characterization by Impedance Spectroscopy <i>M. V. Tsarev, V. V. Mokrushin, K. V. Korshunov, A. M. Shapovalov, A. Yu. Postnikov, I. A. Tsareva, O. Yu. Zabrodina, D. G. Ivanov, E. V. Zabavin, and A. E. Kanunov</i>	22
Combustion of Ti–Al Mixtures: Influence of Preheating, Mechanical Activation, and Burning Mode <i>N. A. Kochetov and B. S. Seplyarskii</i>	26
Combustion of Thermite TiO <sub>2</sub> /ZrO <sub>2</sub> –Ca Mixtures in Nitrogen Gas <i>Yu. M. Maksimov, A. N. Avramchik, B. Sh. Braverman, and A. M. Shulpekov</i>	31
Ti–W Composite by Magnesiothermic SHS and Acid Leaching <i>T. I. Ignat'eva, V. I. Vershinnikov, D. Yu. Kovalev, and V. N. Semenova</i>	36

## Brief Communications

SHS of (Ti,Cr)C Powders with Ni-Containing Binder from Granulated Green Mixtures <i>B. S. Seplyarskii, R. A. Kochetkov, N. I. Abzalov, and T. G. Lisina</i>	42
Synthesis and Ignition of Composite Ti–Cu Powders <i>S. G. Vadchenko, E. V. Suvorova, and I. D. Kovalev</i>	46
Dispersion Strengthened Mo-Based Cast Composite by Centrifugal SHS <i>Yu. S. Vdovin, D. E. Andreev, and V. I. Yukhvid</i>	49
Capillary Spreading of Copper Melt over SHS-Produced NiAl <i>R. M. Gabbasov, A. M. Shulpekov, and V. D. Kitler</i>	52
Iron-Containing Pigments by SHS Method <i>N. I. Radishevskaya, A. Yu. Nazarova, O. V. Lvov, and N. G. Kasatskii</i>	55
Structure and Properties of SPS-produced Carbon-Containing NiAl <i>A. E. Sytshev, N. A. Kochetov, A. S. Shchukin, M. L. Busurlina, and A. V. Aborkin</i>	58
Mechanoactivated SHS in Ferrotitanium–Carbon Black Powder Mixtures <i>G. A. Pribytkov, A. V. Baranovskiy, V. V. Korzhova, and M. G. Krinitsyn</i>	61