



## Conference Program, March 2, 2012

### Oral Session 16:00

Chairman

Prof. L.G.Dyachkov

- 16:00 Melting curves of metals in quasi-harmonic approximation  
*Levashov Pavel Remirovich (JIHT RAS, Moscow, Russia), Minakov D. V., Khishchenko K. V.*
- 16:15 Vitrification of aluminum melt. Molecular dynamics study  
*Kolotova Lada Nikolaevna (JIHT RAS, Moscow, Russia), Norman G. E., Pisarev V. V.*
- 16:30 Atomistic simulation of structure and properties of uraniferous nuclear fuels  
*Smirnova Daria Evgenyevna (JIHT RAS, Moscow, Russia)*
- 16:45 IT tools of thermophysical calculations: properties of substances and methods of determination  
*Ustjuzhanin Evgeny Evgenievich (MPEI (TU), Moscow, Russia), Ochkov V. F., Znamenskiy V. E., Shishakov V. V.*

17:00  **COFFEE-BREAK**

Chairman

Dr. V.V.Milyavskiy

- 17:15 Low temperature non-thermal plasmas at atmospheric pressure: diagnostics and medical applications (plenary)  
*Petrov Oleg Fedorovich (JIHT RAS, Moscow, Russia), Ermolaeva S. A., Zigangirova N., Vasiliev M. M., Sysolyatina E., Alyapyshev M., Kolkova N., Mukhachev A., Naroditsky B. S., Shimizu T., Morfill G. E., Grigoriev A. I., Fortov V. E., Gintsburg A. L.*
- 17:40 Sound velocity in shock-compressed polytetrafluoroethylene in stress range 1.5–45 GPa  
*Nikolaev Alexey Yurievich (RFNC-VNIITF, Snezhinsk, Russia), Vildanov V. G., Borshchevsky A. O., Tkachyov O. V., Zaikin V. T., Slobodenyukov V. M.*
- 17:55 The structure of the superelastic&plastic shock wave  
*Khokhlov Victor Alexandrovich (ITP RAS, Chernogolovka, Russia), Inogamov N. A., Zhakhovsky V. V., Anisimov S. I., Petrov Yu. V.*
- 18:10 Molecular dynamic study of plasticity under shock wave loading  
*Kuksin Alexey Yurievich (JIHT RAS, Moscow, Russia), Yanilkin A. V.*
- 18:25 Wide-range constitutive modelling of multiscale plasticity and damage-failure transition under shock wave loading  
*Naimark Oleg Borisovich (ICMM UB RAS, Perm, Russia)*
- 18:40–18:55 Detonation method of fabrication of novel high-energy magnetic composites with reduced rare earth content  
*Golub Victor Vladimirovich (JIHT RAS, Moscow, Russia), Kotelnikov A. L., Lenkevich D. I., Zvezdin A. K., Zvezdin K. A.*

19:00  **SUPPER**

Chairman

Dr. V.P.Efremov

- 20:00 Quantum phenomena in initiation of detonation waves of condensation  
*Emelianov A. V., Eremin Alexander Viktorovich (JIHT RAS, Moscow, Russia), Gurentsov E. V., Petrushkevich Yu. V., Sivkova E. E., Starostin A. N., Taran M. D., Fortov V. E.*
- 20:10 A conceptual model for carbon nanoparticle formation in shock wave pyrolysis processes  
*Eremin Alexander Viktorovich (JIHT RAS, Moscow, Russia)*
- 20:30 Regimes of chemical reaction wave propagation initiated by temperature non-uniformity for chain-branching kinetics  
*Kiverin Alexey Dmitrievich (JIHT RAS, Moscow, Russia)*
- 20:45–21:00 On instability of converging shock waves of polygonal form  
*Konyukhov Andrey Victorovich (JIHT RAS, Moscow, Russia), Likhachev A. P.*