

Tuesday, July 24, 2018  
VOLATILES IN THE SOLAR SYSTEM  
3:00 p.m. Blue Room

**Chairs: Laurette Piani  
Dmitri Wiebe**

- 3:00 p.m. Wiebe D. S. \* Molyarova T. S. Akimkin V. V. Vorobyov E. I. Semenov D. A.  
[Luminosity Outbursts and Their Impact on the Chemical Content of the Protosolar Nebula](#) [#6085]  
We consider luminosity outbursts in a forming planetary system as a heating source, affecting the disk composition and structure. Molecules are indicated that can be used as tracers of past outburst activity and outburst-related dust processing.
- 3:15 p.m. Shiryayev A. A. \* Trigub A. L. Kvashnina K. O. Bukhovets V. L. Fisenko A. V.  
Semjonova L. F. Verkhovsky A. B. Vasiliev A. L. Averin A. A.  
[Behaviour of Low-Energy Implanted Xe and Kr in Nanodiamonds and Other Nanocarbons: Experiments, Modeling and Cosmochemical Implications](#) [#6046]  
Experiments on low energy implantation of Xe and Kr into several types of nanocarbons and local environment of the implants using XANES are discussed together with our studies of carbonaceous phases with high content of Q-noble gases.
- 3:30 p.m. Marov M. Ya. \* Ipatov S. I.  
[Water and Volatiles Inventory from Beyond Jupiter's Orbit to the Terrestrial Planets and the Moon](#) [#6144]  
Water and volatiles delivery from beyond Jupiter's orbit to the terrestrial planets and the Moon is studied based on our computer simulations of migration of planetesimals from the feeding zone of Jupiter and Saturn.
- 3:45 p.m. Piani L. \* Yurimoto H. Remusat L. Marrocchi Y.  
[Hydrogen Isotopic Composition of Water in CM- and CV-Type Carbonaceous Chondrites](#) [#6135]  
Using in situ analyses by SIMS, we estimated the D/H composition of water in different groups and types of chondrites in order to constrain the distribution of water in the protoplanetary disk at the time and place of planetary body formation.
- 4:00 p.m. Barrett T. J. \* Cernok A. Anand M. Franchi I. A. Darling J.  
[Linking Volatiles and Microstructures in Apatite from Eucrites](#) [#6310]  
In this study we investigate the microstructure of apatite grain in eucrites with previously reported H and preliminary Cl isotopic data in order to discern the relationship between crystallographic features and their volatile compositions.