

Scientific Program

July 2, 2019

9⁰⁰ - 10⁰⁰

Registration (closes on July 4, 10⁰⁰)

Plenary Session I

Chairs: S.V. Krivovichev, S.K. Filatov

10⁰⁰ – 11⁰⁰

Opening Remarks

11⁰⁰ – 11³⁰

Peter Paufler

E.S. Fedorov promoting the Russian-German scientific interrelationship

11³⁰ – 12⁰⁰

Patrick Cordier

Crystal defects and flow in minerals from the Earth's mantle

12⁰⁰ – 12²⁰

Coffee Break

Oral Session I

Chair: O.I. Siidra

Chair: D.A. Zamyatin

Oral Session II

12²⁰ – 12⁴⁰

Sergey N. Britvin, Maria G. Krzhizhanovskaya, Andrey A. Zolotarev and Liudmila A. Gorelova

Minerals of schreibersite-nickelphosphide series, Fe₃P-Ni₃P, in different meteorite groups

Daria V. Kiseleva, Sergei L. Votyakov, Elizaveta A. Pankrushina, Yulia V. Mandra

Raman spectroscopy and imaging in mineralogical stomatology

12⁴⁰ – 13⁰⁰

Ella V. Sokol, Victoria A. Danilovsky, Svetlana N. Kokh, Victor V. Sharygin

Mineralogical diversity of the Hatrurim combustion metamorphic rocks (Dead sea region)

Vladimir P. Lyutov, Alexander B. Makeev, Viktor A. Saldin, Andrei Yu. Lysiuk, Oxana S. Golovataya

Application of Mössbauer, ESR, and FT-IR spectroscopy for mineralogical and technological studies of refractory Fe-Ti and Fe-Mn ores

13⁰⁰ – 13²⁰

Rafał Juroszek, Biljana Krüger, Irina Galuskina, Hannes Krüger, Yevgeny Vapnik and Evgeny Galuskin

Siwaqaite, Ca₆Al₂(CrO₄)₃(OH)₁₂×26H₂O, a New Mineral Belonging to the Ettringite Group Minerals from Daba-Siwaqa Complex, Jordan

Alexander V. Serdtsev, Irina D. Yushina, Sergey M. Aksenov and **Ivan I. Leonidov**

[X₁₂O₃₆] rings, X = Si, Ge, in crystal structures of silicates and germanates

13²⁰ – 13⁴⁰

Margarita S. Avdontceva, Andrey A. Zolotarev, Maria G. Krzhizhanovskaya, Mikhail Rassomakhin, Sergey V. Krivovichev

Fluorellestadite from Chelyabinsk coal basin: crystal structure refinement, chemical analysis, vibration spectroscopy data and thermal behavior

Galina A. Palyanova, Nadezda D. Tolstykh, Veronika Yu. Zinina, Konstantin A. Kokh and Yurii V. Seryotkin

Compositions and properties of gold chalcogenides synthesized in the Au-S-Se-Te system

13 ⁴⁰ – 14 ⁰⁰	Andrey A. Zolotarev , Elena S. Zhitova, Maria G. Krzhizhanovskaya, Mikhail A. Rassomakhin, Vladimir V. Shilovskikh and Sergey V. Krivovichev	Crystal chemistry of ammonium phases from burned dumps of the Chelyabinsk coal basin	Ulyana O. Borodina , Sergei V. Goryainov, Anton F. Shatskiy	Raman study of hydroxide-perovskite [MgSi(OH)₆] at high pressure up to 7 GPa
14 ⁰⁰ – 15 ⁰⁰	Lunch			
	Plenary Session II			Chairs: P. Cordier, M. Colmont
15 ⁰⁰ – 15 ³⁰	Frank C. Hawthorne	Bond Topology of Chain-, Ribbon- and Tube-Silicates		
15 ³⁰ – 16 ⁰⁰	Fernando Cámara	Complexity and stability of Group-I of the ABC-6 family of zeolites		
16 ⁰⁰ – 16 ³⁰	Hubert Huppertz	Renaissance of Alkali Lithosilicates with Surprising Luminescence Properties		
16 ³⁰ – 17 ⁰⁰	Elena Sokolova	The Astrophyllite Supergroup: Topological Constraints and New Chemical Compositions		
17 ⁰⁰ – 17 ²⁰	Coffee Break			
	Oral Session III	Chair: V.V. Gurzhiy	Chair: V.N. Reutsky	Oral Session IV
17 ²⁰ – 17 ⁴⁰	Bruker AXS: Presentation			
17 ⁴⁰ – 18 ⁰⁰	Pavel N. Gavryushkin , N. Sagatov, A. Belonoshko, A. Rečnik, N. Daneau, E. Zhitova, D. Sagatova and K.D. Litasov	New CaCO₃ polymorphs and polytypes stable at ambient conditions	Dmitriy I. Rezvukhin , Taisia A. Alifirova, Andrey V. Korsakov and Alexander V. Golovin	Crystal-chemistry, Raman spectroscopy and origin of some natural LILE-enriched exotic titanate minerals
18 ⁰⁰ – 18 ²⁰	Alexander V. Romanenko , Anastasia Brazhnikova, Anton Shatskiy, Sergey Rashchenko	Influence of high-pressure on Na₄Ca(CO₃)₃ structure: single-crystal X-ray diffraction and Raman spectroscopy study	Kira A. Musiyachenko , Mara Murri, Mauro Prencipe, Matteo Alvaro	The complexity behind the simple Ti oxide structure: Can rutile be used as an elastic geobarometer?
18 ²⁰ – 18 ⁴⁰	Thomas Schlothauer , Gerhard Heide, Marcus Schwarz, Erica Brendler	Chemical composition, IR-spectroscopy and etching behavior of γ-Si₃N₄	Olga V. Rezvukhina , A.V. Korsakov, D.I. Rezvukhin, D.A. Zamyatin, E.D. Greshnyakov and V.Ya. Shur	Complex internal textures in kyanite: a CL, EBSD and Raman spectroscopic study

18 ⁴⁰ – 19 ⁰⁰	Olga V. Frank-Kamenetskaya , Alina R. Izatulina, Vlad V. Gurzhiy, Marina S. Zelenskaya, Aleksey V. Rusakov, Mariya A. Kuz'mina, Dmitry Yu. Vlasov	Ion substitutions and nonstoichiometry of oxalic acid salts formed with participation of the litobiont microbial community	Elena U. Sidorova , Lyalya M. Sitdikova, Nailia M. Khasanova, Victor G. Izotov	Structural and morphological features of kaolinite of the weathering crust according to X-ray diffraction and electron paramagnetic resonance
19 ⁰⁰ – 19 ²⁰	Elena N. Kotelnikova , Anton I. Isakov, Heike Lorenz	Binary systems of organic substances with chiral molecules: enantiomers of the same substance, enantiomers of different substances, and diastereomers	Dinesh Chakravarthy Senthurpandi , M. Nethaji	Single Crystal X-Ray Diffraction Studies of [Mn(5'-GMP)terpy] & [Mn(5'-UMP)terpy-CO₂H] ternary systems
19 ²⁰ – 19 ⁴⁰	Alina R. Izatulina , V.V. Gurzhiy, M.G. Krzhizhanovskaya, M.A. Kuz'mina, O.V. Frank-Kamenetskaya	Hydrated calcium oxalates: crystal structures, thermal stability and phase evolution	Bella B. Zviagina , Victor A. Drits, Olga V. Dorzhieva	Al-rich K-dioctahedral 2M₁ micas: structural factors affecting the crystal-chemical variability
19 ⁵⁰ – 22 ⁰⁰	Welcome Party			

July 3, 2019

Plenary Session III

Chairs: P.C. Burns, P. Paufler

10 ⁰⁰ – 10 ³⁰	Evgeny V. Antipov	From minerals to cathode materials for metal-ion batteries
10 ³⁰ – 11 ⁰⁰	Marie Colmont	Immersion into the fascinating world of anion-centered units
11 ⁰⁰ – 11 ³⁰	Irina P. Makarova	Solid acid proton conductors: impact of changes in hydrogen bonds on properties
11 ³⁰ – 12 ⁰⁰	Olivier Mentré	Exotic topochemical alterations of the cationic sub-lattice in oxides

12⁰⁰ – 12²⁰ Coffee Break

Oral Session V

Chair: A.A. Zolotarev

Chair: Yu.V. Bataleva

Oral Session VI

12 ²⁰ – 12 ⁴⁰	Taras L. Panikorovskii , Gregory Yu. Ivanyuk and Sergey V. Krivovichev	Mineral phylogeny by means of secondary transformation of precursor species	Bogdan I. Lazoryak , D.V. Deyneko, S.Y. Stefanovich, V.A. Morozov	Polyfunctional materials based on β-Ca₃(PO₄)₂ structure type
12 ⁴⁰ – 13 ⁰⁰	Ira V. Rozhdestvenskaya and Wulf Depmeier	Polytypes in charoite and denisovite structures	Elena P. Kharitonova , Ekaterina I. Orlova and Valentina I. Voronkova	Phase formation and polymorphism of Bi₂O₃-based compounds in Bi₂O₃-Ln₂O₃-MeO₃ (Ln = La, Nd, Pr; Me = Mo, W) ternary systems
13 ⁰⁰ – 13 ²⁰	Nadezhda V. Shchipalkina , Alexey R. Kotelnikov, Sergey N. Britvin, Lyubov' V. Mel'chakova, Natalia N. Koshlyakova and Igor V. Pekov	Sodalite-type aluminosilicates Na₈[(Al,Si)₁₂O₂₄]X · nH₂O (X = SO₄, MoO₄, WO₄): synthesis, X-ray diffraction and thermal studies	Andrey A. Shiryaev , Maximilian S. Nickolsky, Vasily O. Yapaskurt, Polina S. Mihaylowa, Nikolai N. Eremin, Boris E. Burakov	Structure of aged ²³⁸Pu-doped Eu-monazite
13 ²⁰ – 13 ⁴⁰	Sergey M. Aksenov , N.V. Chukanov, I.V. Pekov, R.K. Rastsvetaeva, A.E. Hixon	Crystal structure and topological features of manganonaujakasite, Na₆(Mn,Fe)[Al₄Si₈O₂₆]	Polina S. Mikhailowa , Alexei A. Averin, Boris E. Burakov, Vasily O. Yapaskurt, Andrey A. Shiryaev	Structure of synthetic silicate-rich corium – model for Chernobyl lava
13 ⁴⁰ – 14 ⁰⁰	Fabrice Dal Bo , Tomas Husdal, and Henrik Friis	(Y,REE)₆(SiO₄)(Si₃O₁₀)F₆, a novel sorosilicate mineral based on a framework of fluorine-centered triangles and tetrahedra	Dmitry A. Zamyatin , Sergey L. Votyakov, Yuiya V. Shchapova	Thermal annealing of heterogeneous zircon with high concentration of impurity elements

14⁰⁰ – 15⁰⁰ Lunch

Plenary Session IV

Chairs: H.-P. Schertl, F. Bosi

15 ⁰⁰ – 15 ³⁰	Yury N. Palyanov	Effect of crystallization conditions on the formation of defect-impurity centers in diamond
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15 ³⁰ – 16 ⁰⁰	Oleg G. Safonov	Mineral indicators of modal potassic metasomatism in the upper-mantle: a review of natural, experimental and crystal chemical data
16 ⁰⁰ – 16 ³⁰	Pavel Yu. Plechov	Multilayered mineralogical information in spectroscopy of minerals
16 ³⁰ – 17 ⁰⁰	Sergey V. Rashchenko	Synchrotron Radiation in Geoscience: Current State and Future Perspectives
17 ⁰⁰ – 17 ²⁰	Coffee Break	
17 ²⁰ – 17 ⁴⁰	E-Globoledge/Rigaku: Presentation	
17 ⁴⁰ – 19 ⁴⁰	Poster Session	

A1	Ekaterina V. Kaneva, Roman Y. Shendrik, Nikolay V. Vladykin, and Ernesto Mesto	Agrellite from Dara-i-Pioz (Tajikistan) and Murun (Russia) massifs: a comparative EPMA, SCXRD, FTIR, EPR and luminescence study
A2	Elizaveta A. Pankrushina, Aleksandr S. Kobuzov, Yuliya V. Shchapova, Sergey L. Votyakov	Statistical methods for processing large sets of spectroscopic digital data
A3	Valery N. Cheredov	Temperature curves of the entropy of hexagonal ice crystals
A4	Valery N. Cheredov	Formation of nanoclusters at the crystallization front in a percolation model of crystal lattice
A5	Ivan V. Nikiforov, Dina V. Deyneko and Bogdan I. Lazoryak	Europium as a spectroscopic probe to determination site symmetry
A6	O. A. Golovanova, S. A. Gerk	Structural and morphological of carbonate hydroxyapatite prepared in the presence of glycine
A7	Aleksandr N. Zaloga, Sergey V. Burakov, Igor S. Yakimov, Konstantin A. Gusev and Petr S. Dubinin	A multi-criteria genetic algorithm for a crystal structure determination from powder diffraction data
A8	Ksenia E. Smetanina, Pavel V. Andreev, Evgeny A. Lantsev, Maksim S. Boldin	Study of the effect of “free” carbon content in the initial micron powder of WC – Co and sintering temperature on the phase composition of hard alloys obtained by the SPS method
A9	Sergey A. Fateev, Ekaterina I. Marchenko, Golib A. Mascharipov G., Nikolay N. Eremin	Theoretically and experimentally investigation of deviation from the Vegard’s law for solid solutions: hybrid halide perovskite system
A10	Nikolay V. Somov , Pavel V. Andreev, Evgeny V. Chuprunov	The Quantitative Estimation of the Degree of Similarity of Coordination Polyhedra

A11	Kseniya B. Aleynikova, Elena N. Zinchenko, Alexey A. Zmeykin, and Yuriy N. Perin	Fragmentary model and atomic structure of metallic and semiconductor glasses
A12	Alexander F. Khokhryakov, Yuri N. Palyanov, Yuri M. Borzdov, and Igor N. Kupriyanov	Effect of REE oxides on diamond crystallization in Mg-based systems
A13	Zainullin O.B., Komornikov V.A., Timakov I.S.	Preparation of crystals of water-soluble salts of cobalt and nickel
A14	Yurii V. Seryotkin, Vladimir V. Bakakin	Crystal–Fluid Interaction: the Structural Evolution of Zeolites at High Pressure
A15	Anatoliy V. Korneev, Olga V. Frank-Kamenetskaya, Maria A. Kuzmina, Vladimir K. Ryabchuk, Elena V. Sturm	Ti-bearing hydroxyapatites: synthesis, crystal chemistry, properties
A16	Anastasia S. Brazhnikova, Olga N. Koroleva, Sergey V. Rashchenko, Alexandr V. Romanenko, Boris A. Zakharov	Study of K₂O-B₂O₃-GeO₂ Glasses at Pressures up to 9 GPa
A17	Natalia N. Piskunova, Ludmila Y. Kruchkova	Combining Atomic-Force Microscopy and X-ray microtomography. Studies to Reconstruct Natural Crystallogenic Processes
A18	Anna Yu. Likhacheva, Sergey V. Goryainov, Sergey V. Rashchenko and Oleg G. Safonov	Effect of chloride components in water fluid onto serpentine dehydration: in situ HP-HT Raman spectroscopic study
A19	Xu-Ping Li	Geochemical and mineralogical studies of amphiboles from garnet amphibolites in the Xigaze ophiolite, southern Tibet
A20	Gleb S. Maksimov, Igor A. Nauhatsky, Elena M. Maksimova	X-Ray Study of Deposits from the Emine-Bayir-Khosarcave
A21	Anna S. Deviatiiarova	Crystal-Chemical Element Fractionation Under HT-LP Metamorphic Conditions: Case Study From Kochumdek Contact Aureole (Podkamennaya Tunguska Basin)
A22	Evgeny V. Galuskin and Irina O. Galuskina	Sb, W and U in Perovskite from Pyrometamorphic Rocks
A23	D. S. Ponomarev, K. D. Litasov, A. Ishikawa	Detailed Mineralogy and Trace Element Composition of Silicate-Bearing IAB Iron Meteorite NWA11104
A24	Svetlana S. Hontsova, Elena M. Maksimova and Igor A. Nauhatsky	X-Ray Diffraction Study of Ordinary Chondrites
A25	Anna V. Nekipelova, Ella V. Sokol, Dmitriy Artemyev, Olga A. Kozmenko, Svetlana N. Kokh	Anapaite from the Kerch Oolitic Iron Ores: Geochemical Signals and Environment Marker
A26	V. Zhdanova, A. Berezin	Particular qualities of wollastonite from skarns of Kuparsaari occurrence

A27	Y.S. Simakova, V.P. Lyutoev, A.Yu. Lysiuk	Crystal-chemical features of glauconite from Karinskoe deposit (South Urals)
A28	Nikolai S. Chebykin, Ivan P. Sandalov, Dmitry A. Zamyatin	Measurement of platinum group elements in catalysts processing products using SEM and energy dispersive spectrometer
A29	Yulia V. Konevnik, Alexey V. Makarov, Yana Yu. Karaseva, Alexey V. Safonov, Elena V. Zakharova	X-Ray Diffraction Study of Natural Sulfide Minerals for Technetium immobilization
A30	K. Nedaivoda, M. Vetrova , A. Kulkov	Mineral features of raw materials in the Early Iron Age pottery techniques from Northern Pontic Region
A31	Raisa V. Lobzova, Oxana V. Karimova	Textural and structural characteristics and composition of Russian tiles
A32	Ivan A. Levitskii, Hanna N. Shymanskaya, Victoria S. Krasnova	Features of structure and phase formation of basalt containing glazes for porcelain tiles
A33	G.A. Kuznetsova, V.M. Kalikhman	The X-ray determination of natural phlogopite monocrystals thermostability
A34	N.S. Biske	The Raman spectroscopy of meta-anthracite and coal graphite of contact metamorphism
A35	Sergej L. Votyakov, Yuliya V. Shchapova	Luminescence of natural zircon at VUV- and soft X-ray excitation induced by lazer and synchrotron
A36	Tatyana N. Moroz, Nadezhda A. Palchik, Sergey M. Zhmodik	Crystal Chemical and Structural Characterization of Minerals by Vibrational Spectroscopy and X-Ray Diffraction Methods
A37	Vladimir S. Balitsky, Pavel S. Kvas, Elena Yu. Borovikova, Dmitry Yu. Pushcharovsky, Tatiana V. Setkova and Valentina A. Nesterova	The Crystals of Ge,Ga-rich Topaz: Crystal Growth, Germanium and Gallium Distribution, Raman Spectroscopy
A38	Marakhovskaya O.Y., Kuksa K.A., Sokolov P.B.	VIS-spectroscopy Study of Co-blue spinel from Luc Yen, Vietnam
A39	Elena Yu. Borovikova, Valentina A. Nesterova, Tatiana V. Setkova, Dmitry Yu. Pushcharovsky, Vladimir S. Balitsky, Pavel S. Kvas and Sofia A. Tetroeva	Raman Spectra of Synthetic Ga-rich, Ge-bearing Tourmaline Crystals
A40	Yaroslav P. Biryukov, Stanislav K. Filatov, Farit G. Vagizov, Almaz L. Zinnatullin, Rimma S. Bubnova, Igor V. Pekov	Investigation of thermal behavior of synthetic (FeBO_3, Fe_3BO_6) and natural (vonsenite, hulsite) iron-containing borates by high-temperature X-ray powder diffraction and Mössbauer spectroscopy over a wide temperature range
A41	Yuliya V. Shchapova, Elizaveta A. Pankrushina, Aleksander Yu. Kisin, Sergey L.Votyakov	Optical spectroscopy for analyzing of the cation disordering in MgAl_2O_4 spinel
A42	S. Uporov, N. Uporova	Magnetocaloric properties of Gd-Al-Me (Me=Ni, Co, Fe) bulk-amorphous alloys

A43	D.G. Fukina, E.V. Suleimanov, Boryakov A.V., G.K. Fukin, S.G. Protasova and A.M. Ionov	Mixed-valent tellurium oxides $ATe_{1-x}B_xO_6$ (A= Rb, Cs, B=Mo, W) with pyrochlore-related structure
A44	Vladimir P. Lyutoev, Nadezhda A. Zhuk	Investigation of ceramics $BiNbO_4$ doped by ions of Fe and Mn by ESR spectroscopy
A45	Stanislav V. Borisov, Natalie V. Pervukhina, Svetlana A. Magarill	Fedorov's group of crystallographic symmetry – transformation algorithms space and energy while implementing a stable atomic configurations
A46	Mishel R. Markovski, Oleg I. Siidra	Review of Tl(I) coordination polyhedra in oxysalt minerals and synthetic compounds
A47	Lyalya M. Sitdikova	Thermodynamic conditions of clay minerals formation in the deep horizons of the Earth crust
A48	Margarita S. Avdontceva, Maria G. Krzhizhanovskaya, Sergey V. Krivovichev	Cacoxenite and natrophosphate: crystal chemistry of very complex phosphates
A49	Galina B. Kunshina, Irina V. Bocharova and Victor J. Kuznetsov	Formation of the cubic modification of LLZ solid electrolyte with garnet structure
A50	Volkov S.N., Bubnova R.S., Morozov N.A.	Crystal structures of two novel borates in the $SrO-BaO-B_2O_3$ system

July 4, 2019

Plenary Session V

Chairs: Yu.N. Palyanov, I.V. Pekov

10 ⁰⁰ – 10 ³⁰	Peter C. Burns	New Landscapes of Uranium Mineralogy
10 ³⁰ – 11 ⁰⁰	Thomas Armbruster	The Role of Four-Valent Vanadium in Mineral Structures
11 ⁰⁰ – 11 ³⁰	Ferdinando Bosi	On the crystal chemical identification and classification of minerals
11 ³⁰ – 12 ⁰⁰	Frédéric Hatert	The crystal chemistry of natural and synthetic beryll phosphates

12⁰⁰ – 12²⁰ Coffee Break

Oral Session V

Chair: A. Ertl

Chair: O.G. Safonov

Oral Session VI

12 ²⁰ – 12 ⁴⁰	Galina V. Kiriukhina , Olga V. Yakubovich, Iurii Dovgaliuk	A novel high-potassium manaksite analogue, K(K_{0.72}Na_{0.28})Mn[Si₄O₁₀] in the row of isotypic compounds	Koichi Momma	Evaluation of the best weighting scheme for the maximum entropy Patterson method
12 ⁴⁰ – 13 ⁰⁰	Sergey V. Rashchenko , Yurii V. Seryotkin, Ella V. Sokol and Svetlana N. Kokh	Incommensurate modulation in <i>inflamite</i> – natural analogue of $\alpha\text{-H-Ca}_2\text{SiO}_4$	Natalya Kabanova , R.D. Shannon and R. X. Fischer	Fast ion conductivity and deviations from additivity of empirical electronic polarizability in minerals: Voronoi-Dirichlet method
13 ⁰⁰ – 13 ²⁰	L.G. Gerasimova, Gregory Yu. Ivanyuk , G.O. Kalashnikova, S.V. Krivovichev, A.I. Nikolaev, Y.A. Pakhomovsky, T.L. Panikorovskii, G.O. Samburov, V.N. Yakovenchuk	Nature-inspired synthesis technologies of functional titanosilicates	Ekaterina I. Marchenko , Nikolay N. Eremin	Evolutional search of own mineral phases of aluminum in the lower mantle of the Earth
13 ²⁰ – 13 ⁴⁰	Galina O. Kalashnikova , Taras L. Panikorovsky, Elena S. Zhitova, Ekaterina A. Selivanova, Yakov. A. Pakhomovsky, Sergey.V. Krivovichev	Crystal chemistry of lintisite, AM-4 and their protonated form, SL3	Vladislav V. Gurzhiy , Jakub Plášil and Sergey V. Krivovichev	Crystal chemistry and structural complexity of the secondary uranium minerals and their synthetic analogs
13 ⁴⁰ – 14 ⁰⁰	Rimma S. Bubnova , Shablinskii A.P., Filatov S.K., Kolesnikov I.E., A.V. Povolotskiy	Distribution of the Eu³⁺ dopant ions over cation positions and luminescent properties in novel M₃Bi₂(BO₃)₄:Eu³⁺ (M = Sr, Ba) red phosphors	Denis V. Pushkin , Anton V. Savchenkov, Larisa B. Serezhkina, and Viktor N. Serezhkin	UO_n coordination polyhedra, U-substructures and the concept of antiliquid

14⁰⁰ – 15⁰⁰ Lunch

Plenary Session VI

Chairs: F.C. Hawthorne, F. Camara

15 ⁰⁰ – 15 ³⁰	Robert M. Hazen	An evolutionary system of mineralogy: Proposal for a classification of planetary materials based on natural kind clustering
15 ³⁰ – 16 ⁰⁰	Shaunna M. Morrison	Data-driven discovery in mineral systems: Applications of advanced analytics and visualization
16 ⁰⁰ – 16 ³⁰	Hans-Peter Schertl	Cathodoluminescence (CL) microscopy and spectroscopy of magmatic and metamorphic minerals: New avenues for petrological applications
16 ³⁰ – 17 ⁰⁰	Matteo Leoni	Quantitative nanostructure information from diffraction data: what can the diffraction pattern tell you?
17 ⁰⁰ – 17 ²⁰	Coffee Break	
17 ²⁰ – 17 ⁴⁰	Technoinfo: Presentation	
17 ⁴⁰ – 19 ⁴⁰	Poster Session	

B1	Alexandra Ostroverkhova, Anirudh Prabhu	Evolution and structure complexity of Lithium minerals: applying of network analysis
B2	Ivan V. Kuporev, Vladislav V. Gurzhiy	Structural and topological complexity of the uranyl selenates and selenites
B3	Ekaterina F. Rogaleva, Larisa B. Serezhkina, Mikhail S. Grigoriev	The First Example of a 2D Uranyl Oxalatosuccinate Complex
B4	Anton V. Savchenkov, Pavel A. Pirozhkov, Anna V. Vologzhanina, Yan V. Zubavichus, Pavel V. Dorovatovskii, Denis V. Pushkin and Larisa B. Serezhkina	Advanced crystal-chemical role of secondary metals in a series of uranyl crotonates
B5	Nikita A. Shimin, Larisa B. Serezhkina, Mikhail S. Grigoriev	Noncovalent interactions in the new methacrylate uranyl complexes with organic monovalent cations
B6	Anastasiya D. Ryanskaya, Sergey M. Aksenov, Nikolay V. Vladykin, Yulia V. Shchapova, Sergey L. Votyakov, and Ramiza K. Rastsvetaeva	Crystal structure features of lamprophyllite-group minerals: Single crystal X-ray diffraction and Raman spectroscopy study
B7	Irina O. Galuskina, Biljana Krüger, Evgeny V. Galuskin, Yevgeny Vapnik, Mikhail Murashko	A New Mineral Khurayyimite, Ca₇Zn₄(Si₂O₇)₂(OH)₁₀·4H₂O from Daba Siwaqa Pyrometamorphic Rock, Jordan
B8	Yuliya M. Bronzova, Olga V. Frank-Kamenetskaya, Miriam S. Babushkina, Oleg S. Vereshchagin, Ira V. Rozhdestvenskaya, Anatoly A. Zolotarev	Short-range order in Li-Al-tourmalines: a bond-valence theory, IR-spectroscopy and X-Ray single diffraction analysis approach

B9	Irina A. Chernyshova, Oleg S. Vereshchagin, Olga V. Frank-Kamenetskaya, Andrey A. Zolotarev, Maria G. Krzhizhanovskaya, Olga V. Malyshkina	Thermal Behavior and Properties of Synthetic Ni-Bearing Tourmaline
B10	Tatiana A. Eremina, Elena L. Belokoneva, Olga V. Dimitrova, Anatoliy S. Volkov	Lead orthosilicate $\{Pb_4(O(OH)_2)\}_2[SiO_4]$ with a framework of anion centered Pb tetrahedral related to sodalite
B11	Anastasiia P. Topnikova, Elena L. Belokoneva, Anatoly S. Volkov, Olga V. Dimitrova, and Sergey Yu. Stefanovich	Crystal structures of silicate-germanate family with a mixed microporous framework: $(K_{2.9}Cs_{0.1})(Sc_{0.7}In_{0.3})[(Si_{2.9}Ge_{0.1})O_9] \cdot H_2O$ and $(K_{2.22}Cs_{0.78})Bi[(Si_{0.5}Ge_{0.5})O_9] \cdot H_2O$
B12	D.A. Ksenofontov, A.A. Artamonova, N.V. Zubkova, I.V. Pekov, A.Yu. Bychkov, V.O. Yapaskurt, D.Yu. Pushcharovsky	Ion-exchanged forms of the microporous zirconosilicate $Na_6Zr_3[Si_9O_{27}]$, a product of catapleiite annealing
B13	Galina O. Kalashnikova, Taras L. Panikorovsky, Elena S. Zhitova, Ekaterina A. Selivanova, Yakov. A. Pakhomovsky, Sergey.V. Krivovichev	Crystal chemistry of lintisite, AM-4 and their protonated form, SL3
B14	Fedor D. Sandalov, Nadezhda V. Schipalkina, Igor V. Pekov, Natalya N. Koshlyakova, Evgeny G. Sidorov	Silica minerals from the Arsenatnaya fumarole, Tolbachik volcano (Kamchatka, Russia)
B15	Dina V. Deyneko, Ivan V. Nikiforov, Insaaf Duskaev and Bogdan I. Lazoryak	Transformation of the spectroscopy properties during the phase transition in phosphates $Ca_{9-x}Zn_xDy(PO_4)_7$ related to mineral whitlockite family
B16	Polina V. Krikunova, Larisa V. Shvanskaya	Crystal structure of a novel $CsBP_2O_6(OH)_2$ borophosphate and its relationship to the structures of minerals: fransoletite and parafransoletite
B17	Anastasia P. Chernyatieva, Sergey V. Krivovichev, Vadim M. Kovrugin	X-Ray Diffraction Study of Minerals from Kola Peninsula: Crystal chemistry and structural complexity of transition metal diphosphates with alkaline cations
B18	Ekaterina M. Kochetkova, Galina V. Kiriukhina, Olga V. Yakubovich	Products of hydrothermal synthesis in phosphate systems with alkaline and transition metals and the $K_2Mn_3(H_2O)_2[P_2O_7]_2$ crystal structure
B19	Arkadiusz Krz̄ała, Biljana Kr̄uger, Irina O. Galuskina, Hannes Kr̄uger, Yevgeny Vapnik and Evgeny V. Galuskin	Zadovite With Anomalously High Si Content from Negev Desert, Israel
B20	Elena V. Selezneva, Irina P. Makarova, Inna A. Malyshkina, Alla L. Tolstikhina, Radmir V. Gainutdinov, Vladimir A. Komornikov	The cation replacements in the systems of superprotonic crystals
B21	Ivan S. Timakov, Vadim V. Grebenev, Vladimir A. Komornikov, Oleg B. Zainullin, Irina P. Makarova, Elena V. Selezneva	The Cation Substitution in Superprotonic Crystals
B22	Vladimir A. Komornikov, Vadim V. Grebenev, Ivan S. Timakov, Oleg B. Zainullin	Use of Nature-like Compounds at Synthesis of Proton-conducting Composite Materials

B23	Dmitri O. Charkin, Vadim E. Kireev, Oleg I. Siidra, Aleksandr N. Zaloga, and Igor V. Plokhikh	New structural analogies among layered nitrates and halides: synthesis and structure of a new Sillén-derived fluoride nitrate, BaPb₂F₅NO₃
B24	Nina V. Podberezskaya	Mathlokitite as a structural type of lanthanide polyhalogenides: crystallography and crystal chemistry – dichalcogenides REE
B25	Anastasiia I. Zadoia, Oleg I. Siidra, Marie Colmont	Crystal structures and comparative crystal chemistry of three new lead oxo-centered compounds
B26	Vladimir V. Bakakin, Yurii V. Seryotkin	Anion-Centered Clusters (X²⁻M₄₋₁₂)ⁿ⁺ in Oxides and Chalcogenides and its Structural Functions
B27	Katarzyna Nowak, Rafał Juroszek, Biljana Krüger, Irina O. Galuskina and Evgeny V. Galuskin	CO₃-free and P-bearing Lanthanite from Esseneite Paralava of the Hatrurim Complex, Negev Desert, Israel
B28	D.O. Charkin, K.A. Zagidullin, E.V. Nazarchuk, O.I. Siidra	On the crystal structure of thorium hydrogen arsenate, Th₂(AsO₄)₂(HAsO₄)(H₂O)
B29	Nataliya E. Novikova, Timofey A. Sorokin, Alexander M. Antipin, Nadejda B. Bolotina, Olga A. Alekseeva, Nataliya I. Sorokina, and Valentina I. Voronkova	Crystal Structure of La₂W_{1+x}O_{6+3x}
B30	Ekaterina I. Orlova, Elena P. Kharitonova, Egor D. Baldin, and Valentina I. Voronkova	Phase Relations and Properties of Oxygen-Conducting Li_xLn_{5-x}Mo₃O_{16.5-y}F_x (x= 0 – 1.6), Ln = La, Pr, Nd, Compounds
B31	Valentina I. Voronkova, Elena P. Kharitonova, Ekaterina I. Orlova, Egor D. Baldin, Nataliya I. Sorokina, Alexander M. Antipin, Vadim V. Grebenev, and Timofey A. Sorokin	Phase Formation, Structure and Physical Properties of Mg-Containing Nd₂MoO₆ Compounds
B32	Anna V. Shlyakhtina, Maxim Avdeev, Nikolay V. Lyskov, Ksenia S. Denisova, Igor V. Kolbanev, Sergey A. Chernyak, Lidia G. Shcherbakova, Olga S. Volkova, Alexander N. Vasiliev	Polymorphs of rare-earth molybdates Ln₁₀Mo₂O₂₁ (Ln = Gd, Dy, Ho): structure, conductivity and magnetism
B33	Anna V. Shlyakhtina, Nikolay V. Lyskov, Alexander N. Shchegolikhin, Galina A. Vorobieva, I.V. Kolbanev, L.G. Shcherbakova	Evolution of the structure and ionic conductivity of the solid solutions based on Nd₂Hf₂O₇
B34	Volkov S.N., Bubnova R.S., Krzhizhanovskaya M.G., Petrova S.A.	Thermal expansion of Li₂B₄O₇ revised
B35	Yuriev A.A., Shablinsky A.P., Bubnova R.S., Filatov S.K.	Synthesis and thermal behavior of borate CaBi₂B₄O₁₀:Eu
B36	Ekaterina S. Smirnova, Olga A. Alekseeva, Vladimir V. Artemov, Irina A. Gudim	Structure of new mixed samarium aluminum-iron borates SmFe_{3-x}Al_x(BO₃)₄
B37	Olga N. Khrykina, Nadezhda B. Bolotina, Alexander P. Dudka	Some crystallographic parameters of HoB₁₂ single crystals in the temperature range 86-500 K.

B38	Ekaterina S. Smirnova, Olga A. Alekseeva, Alexander P. Dudka, Igor A. Verin, Vladimir V. Artemov, Dmitry N. Khmelenin, Irina A. Gudim, Kirill V. Frolov, Igor S. Lyubutin	Structure features of rare-earth iron borates $(R_{1-x}Bi_x)Fe_3(BO_3)_4$, R = Nd, Gd, Ho, Y in the temperature range 30 – 500 K
B39	Yu.A. Pankova, S.V. Krivovichev	Comparative crystal chemistry of $NaA[B_{10}O_{14}(OH)_4]$ (A = K, NH_4, Rb, Cs) borates
B40	Viktoriia A. Vladimirova, Oleg I. Siidra	Physical properties and structural features of synthetic analogs of averievite $[Cu^{2+}_5O_2](VO_4)_2 \cdot 2Cu^+Cl$ and yaroshevskite $[Cu_9O_2](VO_4)_4Cl_2$
B41	Natalia V. Zubkova, Nikita V. Chukanov, Günter Blass, Igor V. Pekov, Dmitry A. Varlamov, Dmitry A. Ksenofontov and Dmitry Yu. Pushcharovsky	The crystal structure of a new microporous mineral kruijenite, $Ca_4Al_4(SO_4)F_2(OH)_{16} \cdot 2H_2O$
B42	Olga U. Saprykina, Stanislav K. Filatov and Rimma S. Bubnova	Thermal behavior of new mineral belomarinaite ($KNaSO_4$)
B43	Eugenia A. Lukina, Anastasiia A. Meshcheriakova, Oleg I. Siidra, Igor V. Pekov	Thermal behavior of kainite, ideally $KMg(SO_4)Cl \cdot 2.75H_2O$
B44	Rezeda M. Ismagilova, Andrey A. Zolotarev, Elena S. Zhitova, Sergey V. Krivovichev	Crystal chemistry of compound $Cu(Rb,NH_4)(NO_3)(SO_4)$
B45	Artem S. Borisov, Oleg I. Siidra, Natalia V. Platonova, Wulf Depmeier, Evgeniya A. Lukina, Marie Colmont, Diana O. Nekrasova	Thermal expansion and hydration/dehydration of euchlorine $KNaCu_3O(SO_4)_3$
B46	M.A. Nazarova	Typomorphism of halotrichite-group minerals from volcanic exhalation (Kamchatka, Russia)
B47	Anastasia V. Sergeeva and Elena S. Zhitova	Spectral Characterization of the Ammonium Cation located in the structurally 'Inappropriate' Positions
B48	Veronika R. Abdulina, Oleg I. Siidra, Evgeny V. Nazarchuk, Artem S. Borisov	High-temperature X-ray study and dehydration of coquimbite, ideally $Fe^{3+}_2(SO_4)_3 \cdot 9H_2O$
B49	Vladimir G. Krivovichev, Sergey V. Krivovichev	The Fedorov–Groth Law Revisited: Complexity Analysis Using Mineralogical Data
B50	Sergey V. Krivovichev, Taras L. Panikorovskii, Andrey A. Zolotarev, Vladimir N. Bocharov, Anatoly V. Kasatkin and Radek Škoda	Jahn-Teller distortion and cation ordering: the crystal structure of paratooite-(La), a superstructure of carbocernaite
B51	Ruiqi Chen, Oleg I. Siidra, Evgeny V. Nazarchuk, Evgeniya A. Lukina, Karim A. Zagidullin and Dmitri O. Charkin	Belousovite - a sulfate mineral from the Tolbachik volcano, and its synthetic analogues $KZn(SO_4)X$, X = Cl, Br

July 5, 2019

Plenary Session VII

Chairs: H. Huppertz, O. Mentre

10 ⁰⁰ – 10 ³⁰	Wulf Depmeier	Still waters run deep
10 ³⁰ – 11 ⁰⁰	Stuart Mills	Modern day mineralogy utilising X-ray diffraction
11 ⁰⁰ – 11 ³⁰	Igor V. Pekov	Towards structural mineralogy and genetic crystal chemistry of boron: novel crystal structures of borate and borosilicate minerals from different geological formations
11 ³⁰ – 12 ⁰⁰	Andreas Ertl	Relationships within the tourmaline supergroup and proposed <i>PT</i> conditions for a B-rich tourmaline endmember as well as for Li-rich tourmalines

12⁰⁰ – 12²⁰ **Coffee Break**

Oral Session VII

Chair: S.N. Britvin

Chair: S.M. Aksenov

Oral Session VIII

12 ²⁰ – 12 ⁴⁰	Oleg I. Siidra	Fumarolic sulfate minerals: new data and possible applications	Oxana V. Karimova, Andrey A. Zolotarev	Ordering of As and Sb in the crystal structures of arsenopalladinite Pd₈As_{2.5}Sb_{0.5} and mertieite-II Pd₈Sb_{2.5}As_{0.5}
12 ⁴⁰ – 13 ⁰⁰	Ilya V. Korniyakov, Sergey V. Krivovichev	Crystal Chemical Classification of Divalent Copper Oxysalt Minerals	Ramiza K. Rastsvetaeva, S.M. Aksenov, and N.V. Chukanov	New data on crystal chemistry of eudialyte-group minerals
13 ⁰⁰ – 13 ²⁰	Michael S. Kozin, Oleg I. Siidra, Wulf Depmeier, Roman A. Kayukov, Vadim M. Kovrugin	Complex Cu-Pb selenite bromides: a new large family of layered compounds	Elena S. Zhitova, Sergey V. Krivovichev, Igor V. Pekov and Nikita V. Chukanov	Crystal chemistry of Cl-dominant hydrotalcite-supergroup members
13 ²⁰ – 13 ⁴⁰	Diana O. Nekrasova, Marie Colmont, Olivier Mentré, Alexander A. Tsirlin and Oleg I. Siidra	Modification of spin-triplet state in novel copper synthetic sulfates	Andrey P. Shablinskii, Lidiya G. Galafutnic, Rimma S. Bubnova, and Stanislav K. Filatov	Synthesis, crystal structure and thermal expansion of gaudefroyite-type borates: Sr₃Bi(YO)₃(BO₃)₄, Sr₂CaBi(YO)₃(BO₃)₄ and Sr₂BaBi(YO)₃(BO₃)₄
13 ⁴⁰ – 14 ⁰⁰	Dmitry O. Charkin, V.Yu. Grishaev, Mishel R. Markovski, Diana O. Nekrasova, Oleg I. Siidra	Layered copper hydrogen selenites: a family of decorated perovskite derivatives	Ravil A. Khasanov, Nazim M. Nizamutdinov, Nailia M. Khasanova	EPR in single crystals of technogenic gypsum and powders of its dehydration products

14⁰⁰ – 15⁰⁰ **Lunch**

Plenary Session VIII

Chairs: W. Depmeier, P. Plechov

15 ⁰⁰ – 15 ³⁰	Herbert Pöllmann	Quantitative X-ray analysis of natural and artificial supplementary cementitious materials originating from Industrial residues and natural pozzolanic rocks
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15 ³⁰ – 16 ⁰⁰	Hideo Toraya	The direct derivation (DD) method: a new technique for quantitative phase analysis using observed intensities of individual phases and their chemical composition data
16 ⁰⁰ – 16 ³⁰	Nikolai N. Eremin	Semi empirical atomistic modeling in inorganic crystal chemistry and structural mineralogy: limitations and possibilities
16 ³⁰ – 17 ⁰⁰	Stanislav K. Filatov, Rimma S. Bubnova	200 years after discovery of the general phenomena of crystal chemistry by Eilhard Mitscherlich: iso- and polymorphism, highly anisotropic and negative thermal expansion

17 ⁰⁰ – 17 ²⁰	Coffee Break	
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Oral Session IX		Chair: N.N. Eremin	Chair: A.A. Shiryaev	Oral Session X
17 ²⁰ – 17 ⁴⁰	Maria Krzhizhanovskaya , Rimma Bubnova, Sergey Volkov, Ljudmila Gorelova, Nadezhda Zhuk and Stanislav Filatov	Unusual polymorph transformations: <i>in situ</i> HTXRD data	Sergey V. Titkov	Transformation of nitrogen centers in natural diamonds under plastic deformation
17 ⁴⁰ – 18 ⁰⁰	Anna Yu. Likhacheva , Sergey V. Rashchenko, Kira A. Musiyachenko, Andrey V. Korsakov, Ines E. Collings, Michael Hanfland	High-pressure structure evolution of maruyamaite (K-tourmaline) from diamondiferous gneisses of the Kokchetav massif: the role of K	Vadim N. Reutsky , Yury N. Palyanov	Preliminary experimental data on isotope and impurity' fractionation at diamond crystallization by dodecahedron and trapezohedron faces
18 ⁰⁰ – 18 ²⁰	Oleg S. Vereshchagin , Olga V. Frank-Kamenetskaya, Bernd Wunder, Sergey N. Britvin, Ira V. Rozhdestvenskaya	New synthetic tourmalines: crystal chemistry, functional properties and possible implication for geological reconstructions	Christian Schmidt , Lea Scholten, Pilar Lecumberrri-Sanchez, Matthew Newville, Antonio Lanzirrotti, Monaliza C. Sirbescu and Matthew Steele-MacInnis	Fe(II) and Fe(III) complexation and the oxidation state of Fe in chloridic hydrothermal fluids
18 ²⁰ – 18 ⁴⁰	Liudmila A. Gorelova , Anna S. Pakhomova, Maria G. Krzhizhanovskaya, Leonid S. Dubrovinsky, Sergey V. Krivovichev	Dynamical crystal chemistry of danburite-group minerals $MB_2Si_2O_8$ ($M = Ca, Sr, Ba$)	Yuliya V. Bataleva , Ivan D. Novoselov, Aleksey N. Kruk and Yuri N. Palyanov	Experimental modeling of decarbonation reactions resulting in the formation of Mg,Fe,Ca,Mn-garnets and CO₂-fluid under lithospheric mantle P,T-parameters

18⁴⁰ – 19⁰⁰

Sergey N. Volkov,
Krzhizhanovskaya M.G.,
Bubnova R.S., Belousova
O.L., Povolotskiy A.V.,
Kolesnikov I.E.

**Sr_{3-1.5y}Eu_yB_{2+x}Si_{1-x}O_{8-x/2} solid
solutions: synthesis, crystal
structure, thermal expansion
and luminescence**

Alexey N. Kruk, A. G.
Sokol, Yu. N. Palyanov

**Formation of phlogopite and magnesite in
kimberlite-like systems at 5.5–7.5 GPa**

19⁰⁰ – 19²⁰

Closing Ceremony

19²⁰ – 22³⁰

Conference Banquet