

2017 JAMS Annual Meeting Sessions Outline

Special Session	Outline
<p>S1: Progress in Earth materials science related to igneous processes</p> <p>Conveners M. Hamada: mhamada[a]jamstec.go.jp S. Yoshimura: shumpyos[a]sci.hokudai.ac.jp K. Ueki: kenta-ueki[a]eri.u-tokyo.ac.jp M. Ushioda: m.ushioda[a]aist.go.jp M. Mujin: m.mujin[a]dc.tohoku.ac.jp K. Matsumoto: k.matsu[a]dc.tohoku.ac.jp</p>	<p>Recent advances in Earth materials science to decode igneous processes and geodynamics of magmas, such as partial melting of mantle and generation of primary magmas, differentiation of magmas, volcanic eruption, formation of ore deposit, contact metamorphism and metasomatism, are remarkable. Most of these studies are based on geochemical analysis and observation of the micro- to nano-structure of mantle xenoliths, volcanic and plutonic rocks, volcanic gases, hot spring waters and so on. The purpose of this special session is to facilitate a discussion of the latest studies and to promote the field of Earth materials science.</p> <p>We welcome multidisciplinary contributions based on field observations, analyses of natural samples, high P/T experiments and theoretical modelling to better understand igneous processes.</p>
<p>S2: Water Rock Interaction</p> <p>Conveners N. Tsuchiya: tsuchiya[a]mail.kankyo.tohoku.ac.jp Y. Okuyama: okuyama-gsj[a]aist.go.jp K. Fujimoto: koichiro[a]u-gakugei.ac.jp T. Kawakami: t-kawakami[a]kueps.kyoto-u.ac.jp</p>	<p>Topic session “Water – Rock Interaction” involves multidisciplinary research for roles of “fluids” to the Earth Processes, related to metamorphic rocks, volcanic rocks, hydrothermal alteration, ore deposit, hydrothermal experiments, and transport phenomena of fluids. Research methods are also multidisciplinary research methods, such as field survey, experiment, numerical calculation and modeling, will be expected.</p> <p>This topic session also includes geological application such as mineralogical study of radioactive decontamination, nuclear waste geological disposal and carbon dioxide capture and storage and geothermal energy.</p>
<p>S3: Applications of synchrotron X-ray and neutron beams to mineral sciences</p> <p>Conveners T. Inoue: toinoue[a]hiroshima-u.ac.jp Y. Nishihara: yunishi[a]sci.ehime-u.ac.jp H. Ohfuji: ohfuji[a]sci.ehime-u.ac.jp</p>	<p>It has been just 20 years since the world-largest third generation synchrotron light source, SPring-8, was opened to the users. A number of cutting-edge studies have emerged from the beamlines relevant to mineralogical studies at SPring-8, as well as those at KEK. Moreover, a new beamline for Earth and planetary sciences for the use of spallation neutron source at J-PARC has also been operational, and some important results in mineralogical sciences have already come out. We welcome presentations on the recent achievements in applications of these and other quantum beams to various fields of mineralogy. We also aim at promoting interdisciplinary research collaborations and discussions about future up-grading of existing beamlines and construction of new beamlines relevant to mineralogical sciences.</p>

Regular Session	Outline
<p>R1: Characterization and description of minerals</p> <p>Conveners R. Miyawaki: miyawaki[a]kahaku.go.jp M. Akasaka: akasaka[a]riko.shimane-u.ac.jp M. Kurosawa: kurosawa[a]geol.tsukuba.ac.jp</p>	<p>This session focuses on mineral descriptions and analytical methods of earth and planetary materials. Descriptions of occurrence, morphology, internal texture, crystal structure, chemistry, fluid inclusion, solid inclusion, crystal imperfections in minerals, and studies on development of analytical methods for mineral sciences are welcomed.</p>
<p>R2: Crystal structure, crystal chemistry, physical properties of minerals, crystal growth and applied mineralogy</p> <p>Conveners K. Komatsu: kom[a]eqchem.s.u-tokyo.ac.jp K. Sugiyama: kazumasa[a]jimr.tohoku.ac.jp A. Yoshiasa: yoshiasa[a]sci.kumamoto-u.ac.jp</p>	<p>This session covers structural description of natural and synthetic minerals, their growth and dissolution mechanism together with interesting physico-chemical properties. Presentations dealing with advanced analytical techniques for characterizing a variety of mineral structures and their fundamental properties are welcome.</p>
<p>R3: High-pressure science and deep Earth's material</p> <p>Conveners H. Kagi: kagi[a]eqchem.s.u-tokyo.ac.jp T. Nagai: nagai[a]mail.sci.hokudai.ac.jp T. Inoue: toinoue[a]hiroshima-u.ac.jp</p>	<p>It is significantly important to understand the wide range of mineral sciences in the Earth's interior, because dynamics in the Earth's interior must be closely related to not only the evolution of the Earth but also the environment near the Earth's surface. The aim of this session will be to discuss the full range of physical and chemical properties of minerals on the basis of experimental and computational approaches. Targeted materials are not only minerals but also their analogous, amorphous materials and melt.</p>
<p>R4: Mineral sciences of the Earth surface</p> <p>Conveners K. Fukushi: fukushi[a]staff.kanazawa-u.ac.jp S. Utsunomiya: utsunomiya.satoshi.998[a]m.kyushu-u.ac.jp T. Kogure: kogure[a]eps.s.u-tokyo.ac.jp</p>	<p>This session aims to present the latest advances in the mineralogical sciences of the Earth surface. The session will cover physical and chemical characteristics of nano-scale minerals, biomineralization, processes at water-mineral interface, inorganic-organic interactions, and others.</p>

<p>R5: Extraterrestrial materials</p> <p>Conveners T. Nakamura:tomoki[a]m.tohoku.ac.jp Y. Seto:seto[a]crystal.kobe-u.ac.jp</p>	<p>We welcome contributions on mineralogical sciences of extraterrestrial materials such as presolar grains, cosmic dust, meteorites, lunar samples, and return samples.</p>
<p>R6: Plutonic rocks, volcanic rocks and subduction factory</p> <p>Conveners M. Ban:ban[a]sci.kj.yamagata-u.ac.jp A. Kamei:kamei-a[a]riko.shimane-u.ac.jp T. Ohba:t-ohba[a]gipc.akita-u.ac.jp</p>	<p>This session focuses on studies of plutonic and volcanic rocks. We expect lively discussions on magma genesis, magma emplacement and their relationship with tectonics, from the viewpoint of various disciplines such as petrology, mineralogy, geochemistry, dating, and geology. This session also welcomes studies on subduction factory that produces continental crust.</p>
<p>R7: Petrology, Mineralogy and Economic geology</p> <p>Conveners J. Ando:jando[a]hiroshima-u.ac.jp K. Fujimoto: koichiro[a]u-gakugei.ac.jp</p>	<p>This session accepts a wide range of petrological, mineralogical, economic geological, and geochemical studies that deal with earth and planetary materials. We expect various discussions about constituent materials of the earth. (Joint Session with SRG (Society of Resource Geology))</p>
<p>R8: Metamorphic rocks and tectonics</p> <p>Conveners N. Nakano:n-nakano[a]scs.kyushu-u.ac.jp S. Endo:s-endo[a]riko.shimane-u.ac.jp</p>	<p>We call for interdisciplinary contributions dealing with crustal and mantle dynamics at the plate convergent boundaries, including approaches from petrology, structural geology, geochronology, fluid inclusion studies, numerical modeling and isotope geochemistry.</p>