

Subject: **Minerals** (MDPI, <http://www.mdpi.com/journal/minerals>), IF 2.818, Q2.

Paper Invitation for Special Issue “Advances in the Applications of Mössbauer Spectroscopy for Studies of Iron-Bearing Minerals”

Dear Colleagues,

The *Minerals* Editorial team and I are currently organizing a Special Issue, which may be of interest to those of you who applies Mössbauer spectroscopy for study various minerals. As the Guest Editor, I cordially invite you and your colleagues to contribute a research article or review paper to the following Special Issue:

Special Issue: “**Advances in the Applications of Mössbauer Spectroscopy for Studies of Iron-Bearing Minerals**”

Guest Editors: Dr. Michael Oshtrakh

Submission deadline: 31 August 2023

Website: https://www.mdpi.com/journal/minerals/special_issues/3EX8J27ELO

Special Issue Information

Various minerals contain iron cations which can occupy one or more crystallographic sites in these crystals. The iron chemical and physical states are some of the important characteristics of iron-bearing minerals which can influence the mineral structure and physical features. Metals, including iron, occupations of different crystallographic sites, and their redistributions with temperature are also very important in order to analyze the thermal history of minerals. Various extreme factors affecting terrestrial and extraterrestrial iron-bearing minerals, namely, high pressure, heating and reheating, cooling rate, impacts, etc., lead to some variations in the iron local microenvironments. ^{57}Fe Mössbauer spectroscopy is one of the most sensitive physical techniques for the study of various iron-containing materials, including minerals. This technique permits analyzing the ^{57}Fe hyperfine parameters (isomer shift, quadrupole splitting/quadrupole shift, magnetic hyperfine field), the iron valence/spin states, dynamics of ^{57}Fe , relative iron contents in different sites, including iron partitioning variations, and in the minerals' mixture, the ^{57}Fe local microenvironments and their transformations, etc. More than 60 years of experience demonstrate high potential and advances in the applications of Mössbauer spectroscopy in the studies of various minerals. This Special Issue aims to present reviews and original research papers in the field of Mössbauer spectroscopy of various iron-bearing terrestrial and extraterrestrial minerals to demonstrate advances in this technique.

You may share this invitation with your team members and colleagues; co-authors are most welcome. If you would like to contribute, please, send me by e-mail (oshtrakh@gmail.com) the tentative title of your manuscript, the authors, and their affiliations. We will consider your proposal with the Editorial board and send you a personal invitation. In this case you will be granted a special discount up to 50%, which will be applied to the article processing charge. Moreover, for well prepared review paper, the publishing fee will be fully waived.

Papers may be submitted now or at any time prior to the deadline, as they will be published on an ongoing basis. Once the paper is accepted, *Minerals* will arrange its publication immediately.

This Special Issue belongs to the section "Crystallography and Physical Chemistry of Minerals & Nanominerals" (https://www.mdpi.com/journal/minerals/sections/Crystallography_Physical_Chemistry).

Minerals is an MDPI open access journal (indexed in Web of Science, IF 2.818). *JCR category rank*: 8/20 (Q2) in the 'Mining & Mineral Processing' category, 11/30 (Q2) in the 'Mineralogy' category, and 42/87 (Q2) in the 'Geochemistry & Geophysics' category.

The Article Processing Charge (APC) is 2000 CHF (Swiss Francs) per accepted paper. Submission before 31 May 2023 will have CHF 400 discount, submission before 31 July 2023 will have CHF 200 discount.

For any questions regarding technical issues or the journal, please contact Ms. Kelly Shen kelly.shen@mdpi.com.

I look forward to hear from you soon.

With best wishes,

Michael Oshtrakh,

Guest Editors of Special Issue “Advances in the Applications of Mössbauer Spectroscopy for Studies of Iron-Bearing Minerals”