

Thursday, June 19, 2014
**LRS APPLICATIONS IN THE FIELD OF GENERAL MINERALOGY,
 PETROLOGY, AND GEMOLOGY II**
10:30 a.m. Umrath Lounge

Chairs: Wuyi Wang
Jesse Walters

- 10:30 a.m. Golovin A. V. Korsakov A. V. * Zaitsev A. N.
[*In Situ High-Temperature Raman Spectroscopic Study of Zemkorite and \(Na,K\)₂Ca\(CO₃\)₂ γ-Phase*](#) [#5046]
In situ high-temperature Raman spectroscopic study of Zemkorite and (Na,K)₂Ca(CO₃)₂ γ-Phase.
- 10:45 a.m. Wang W. *
[*Identification of CVD Synthetic Gem Diamond Using Raman Spectroscopy*](#) [#5098]
 Photoluminescence features of natural and CVD synthetic diamonds using Raman spectrometers will be discussed in this study. While there are some clear differences in defects configuration, post-growth treatments make the separation increasingly challenging.
- 11:00 a.m. Walters J. B. * Kohn M. J.
[*Examining the Temperature Range Suitable for Quartz-in-Garnet Geoba-Raman-Try*](#) [#5023]
 P's were calculated using quartz inclusions in garnet over a wide range of P-T conditions. Data suggests quartz-in-garnet geoba-Raman-try may be accurate up to the granulite facies. P may also be retrieved for multiple stages of garnet growth.
- 11:15 a.m. Korsakov A. V. * Yang J. Toporski J.
[*High Resolutions Raman Imaging of Large Area of Kyanite Porphyroblasts or Searching for the Lost UHPM Events*](#) [#5048]
 High resolutions Raman imaging of large area of kyanite porphyroblasts or searching for the lost UHPM events.
- 11:30 a.m. Bartholomew P. R. *
[*The Role of Intensity and Instrument Sensitivity in Raman Mineral Identification*](#) [#5087]
 In order to guide the potential user of LRS for mineral identification this study investigates: a) ranges of Raman intensity that can be expected from minerals; b) the impact of random spectral noise; and c) the impact of instrument sensitivity.
- 11:45 a.m. Carey C. * Boucher T. Mahadevan S. Dyar M. D. Bartholomew P.
[*Machine Learning Tools for Mineral Recognition and Classification from Raman Spectroscopy*](#) [#5053]
 This study evaluates full-spectrum similarity-based algorithms for materials identification using Raman spectroscopy. We present two promising approaches which demonstrate state of the art performance on a mineral identification task.
- 12:00 p.m. LUNCH
Presentations by Silver Sponsors, GRISAC Meeting