

Suggested Outline for Instrument/Technique Article

We have found that the following outline works well for most instrument/technique articles, with more emphasis often placed on some sections than others, depending on the nature of the instrument/technique, or the author's specific interests and expertise. Depending on the actual subject matter, authors may choose not to address all the points below, or they may wish to provide additional subject matter.

ABSTRACT: concise statement of what material was studied, methods used, and the gemological importance of the technique

INTRODUCTION: significance of the technique, and how this technique fills the needs of the gem and jewelry industry—the lead photograph should show an example of the samples studied or the instrument employed

BACKGROUND: history of the instrumentation or technique (including all relevant previous work), why it was developed, and how past limitations have been overcome; also include information on the nature of the characteristic being measured in natural and/or synthetic samples

MATERIALS AND METHODS: source of samples (e.g., trade show, or directly from the miner or manufacturer), number of samples and their description (e.g., rough or fashioned, sizes, range of colors—a photo of all or a representative group of samples is appropriate), what tests/analyses were performed on which samples and using what equipment—be specific

RESULTS: The content of this section will vary according to the nature of the instrument/technique or material studied, but should include a description of the samples (color and color zoning, diaphaneity, microscopic characteristics, and any other characteristics important for this technique (chemistry, luminescence, absorption spectrum, spectroscopy, etc.) and a statement of the results obtained for each sample or sample type—if applicable, data tables, graphs, and/or photomicrographs should be supplied

DISCUSSION: what can be inferred from the material studied about this technique; how it can be applied to detecting treatments, establishing natural vs. synthetic origin, etc.; similar instruments/techniques should be discussed, with an appraisal of the benefits and drawbacks

CONCLUSION: summary of the main points, including the capabilities and future potential of the instrument/technique

REFERENCES: formatted as per G&G style

Notes:

Please also include brief sections covering “About the Author” and “Acknowledgments.”
Figure captions need to be complete sentences.