

Mineral lighting how your minerals, your lights, and your eyes all interact

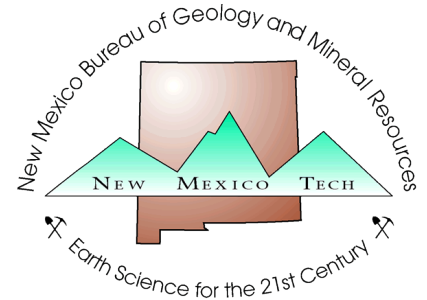
Anthony Gleckler

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pp.21

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The annual [New Mexico Mineral Symposium](#) provides a forum for both professionals and amateurs interested in mineralogy. The meeting allows all to share their cumulative knowledge of mineral occurrences and provides stimulus for mineralogical studies and new mineral discoveries. In addition, the informal atmosphere encourages intimate discussions among all interested in mineralogy and associated fields.

The symposium is organized each year by the [Mineral Museum](#) at the [New Mexico Bureau of Geology & Mineral Resources](#).



Abstracts from all prior symposiums are also available: <https://geoinfo.nmt.edu/museum/minsymp/abstracts>

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Mineral Lighting How Your Minerals, Your Lights, and Your Eyes all Interact

Anthony Gleckler, Ph.D.

While anyone can get light on a rock, getting it to look right is hard—getting it to look right for all of your specimens tends to make it a frustrating endeavor for many mineral collectors.

The reason for this difficulty is that multiple factors affect the optimal viewing of a mineral, of which most people only understand a few. Your lights, your minerals, and your eyes all interact to produce a combination of effects that impact your viewing pleasure... or displeasure. Properly lighting your minerals is a surprisingly difficult task that we seek to simplify.

We start with the fundamental part of seeing. In other words, how the human eye works—at least as far as viewing minerals is concerned. What catches your eye? What allows your eye to see your minerals better? How are colors perceived?

After that, we discuss the various types of lighting available: halogens, fluorescent bulbs, and the popular “white light” light-emitting diodes (LEDs). What most don’t understand is that most “white lights” may fool your eye and appear white, but they are not. We demystify this assumption and explain how different lighting types affect the color and look of your minerals.

Using the information on lighting and how the eye works, we then provide information on how to light your minerals, what kind of lights to order, and how much light should you put on your minerals. This comes with Tony’s three big rules on mineral lighting, which will aid you in understanding the things to look out for when designing and installing your own lighting.

About the Speaker

Dr. Gleckler has his Ph.D. in Optical Sciences and is the CEO of GEOST, an aerospace company that builds optical sensors for spacecraft. In his spare time, he is an avid mineral collector as well as a mineral photographer. He’s given talks on mineral lighting to museums and groups, all with the purpose of better educating the community and enabling people to enjoy their rocks even more.