

Abstract Submitted  
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**Light Sensitivity of Diamond Monocrystals** BENJAMIN BENTELE,  
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at Boulder — We are investigating the use of diamonds as a low density, radiation-  
hard sensor for nuclear and particle research. Using a radioactive source, we have  
studied the response of minimum ionizing particles as a function of voltage, polarity,  
and time stability. While it is well known that polycrystalline diamond is light-  
sensitive, little is known about the light sensitivity of single crystal diamond. We  
will report on our studies of the diamond's electronic response to light and the  
diamond's internal "polarization" effect. We also describe our future plans.

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