

Abstract Submitted
for the MAR17 Meeting of
The American Physical Society

Determination of the gap of bulk Bi_2Se_3 at low temperatures by photo-luminescence and optical transmission measurements. GERARD MARTINEZ, B PIOT, M HAKL, M ORLITA, M POTEMSKI, LNCMI-CNRS, 25 rue des martyrs, Grenoble, France, Y.S. HOR, Department of physics, Missouri University of Science and Technology, MO 65409 USA, A MATERNA, G STRZELECKA, A HRUBAN, Institute of Electronic Materials Technology, Warsaw, Poland — A series of different Bi_2Se_3 samples have been investigated at low temperatures by transport, photo-luminescence and optical transmission measurements. A complete analysis of the dielectric function of the material allows to extract the value of the gap E_g which is found to be equal to 0.219 ± 0.001 eV at temperatures below 4.2 K.

Gerard Martinez
LNCMI-CNRS

Date submitted: 07 Nov 2016

Electronic form version 1.4