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### **Pressure Induced Superconductivity in Topological Compounds**

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Topological quantum compounds attract worldwide attention because of many novel physical properties. Topological superconductivity is one of most excited topological quantum states since its surface supports Majorana fermions [1] that are assumed many new physics. We found superconductivity can be realized in a typical topological insulator  $\text{Bi}_2\text{Te}_3$  induced via pressure above 3 GPa where the surface remains gapless Dirac cone[8]. The Hall coefficient measurements indicated carriers evolved as function of pressure. The x ray diffraction experiments at high pressure indicated that  $\text{Bi}_2\text{Te}_3$  keeps stable up to 8GPa. This strongly suggests that the superconductivity observed in  $\text{Bi}_2\text{Te}_3$  ambient phase is topological related. Acknowledgments: This work was supported by nsf & MOST of China.

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