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**Magnetic Properties of  $\text{Ho}_{1-x}\text{Dy}_x\text{Ni}_2\text{B}_2\text{C}$**  W.C. LEE, Dept. of Phys. Sookmyung Womens' Univ. Seoul 140-742, Korea — We performed the magnetization measurement on  $\text{Ho}_{1-x}\text{Dy}_x\text{Ni}_2\text{B}_2\text{C}$  single crystals ( $x = 0.1, 0.2, 0.3, 0.4, 0.6$ ) with magnetic field applied perpendicular and parallel to the  $c$ -axis. There exists the strong anisotropy between magnetization data for both  $H \perp c$ -axis and  $H \parallel c$ -axis at low temperatures, which is related with the crystalline electric field effect. The increase of Dy concentration affects the magnetically ordered states of  $\text{HoNi}_2\text{B}_2\text{C}$  compound and makes the phase diagram more complicated. The antiferromagnetic ordering state attributed to  $\text{Dy}^{+3}$  sublattice starts to appear from a case of  $x = 0.2$ . Finally the magnetic phase diagram becomes analogous to that of  $\text{DyNi}_2\text{B}_2\text{C}$  as  $x$  is increased

W.C. Lee  
Dept. of Phys. Sookmyung Womens' Univ. Seoul 140-742, Korea

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