this assumption is not valid. However, in this case the number of Mn atoms remains constant throughout the concentration range, and therefore we expect the number of magnetic d electrons to remain more or less constant.

<sup>23</sup>V. Heine, Phys. Rev. <u>153</u>, 673 (1967).

<sup>24</sup>R. C. Wayne and L. C. Bartel, Phys. Letters <u>28A</u>, 196 (1968).

<sup>25</sup>J. B. Goodenough, J. Appl. Phys. <u>39</u>, 403 (1968).

 $^{26}$ L. C. Bartel, J. Appl. Phys.  $\underline{41}$ , 5132 (1970).

 $^{27}$ R. W. Lynch, J. Chem. Phys. 47, 5180 (1967).

<sup>28</sup>E. P. Wohlfarth (unpublished).

<sup>29</sup>L. C. Bartel and E. P. Wohlfarth, Bull. Am. Phys. Soc. <u>16</u>, 351 (1971).  $^{30}{\rm If}$  we assume a ratio  $I/I_b$  for MnSb, then  $I/I_b$  is fixed,

through Eq. (3), for the solid solutions when x > 0. The results shown in Fig. 7 are independent of the assumed value of  $I/I_b$  for MnSb.

 $^{31}$ The lattice parameters for MnSb and MnAs at  $T=20~^{\circ}$ C were taken from the work of B. T. M. Willis and H. P. Rooksby, Proc. Phys. Soc. (London) 67B, 290 (1954). To obtain values for the intermediate solid solutions a linear extrapolation was used as the data of Ref. 3 suggest.

32 For ZrZn2, the Fermi level lies at the peak in the density of states that has a full width of approximately 0.16 eV [G. S. Knapp, F. Y. Fradin, and H. V. Culbert, J. Appl. Phys.  $\underline{42}$ , 1341 (1971)].  $^{33}$ J. B. Goodenough (private communication).