

the other end lie those with little, perhaps negligible, magnetism: electron-doped ZrNCl and HfNCl, and electron-doped TiNCl. There are several other, lower- T_c systems, whose behavior seems different still (hydrated Na_xCoO_2 , $\text{Li}_{1-x}\text{NbO}_2$, and several transition-metal disulfides and diselenides).

A common feature of most of these systems is that they are 2D and have a small, but not tiny, concentration of charge carriers, often in the range of 0.05–0.15 carriers per unit cell. These materials also have ionic character. NaAlSi differs in that it has *sp* carriers—the others have carriers in *d* bands—and is self-doped, a compensated semimetal. We suggest that a useful view of NaAlSi is that it be regarded as arising from an underlying ionic semiconductor, but that it has a small *negative* gap rather than a true gap. Without the overlap of the valence and conduc-

tion bands, it would be a 2D, ionic, and somewhat covalent semiconductor like the aforementioned nitridochloride compounds, which superconduct in the 15–25 K range. Comparing the characteristics of these two classes of superconductors should further the understanding of 2D superconductivity.

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