FM 3  dHvA Effect in Nb₃Sb.* A. J. ARKO, Argonne
National Laboratory and Z. FISK, U. of California at
San Diego.—We have observed dHvA oscillations in Nb₃Sb,
a compound having the β-tungsten (A-15) crystal structure
and a superconducting transition temperature T₀ % 0.2K.
Specimens with resistance ratios %90 were grown using
iodide vapor transport. Measurements were made in fields
up to 70kG and temperatures down to 0.5K. Frequencies
associated with four different pieces of Fermi surface
were observed with magnitudes ranging from 0.5 x 10⁶ Gauss
to 25 x 10⁶ Gauss. One frequency branch is consistent
with a closed surface located at Γ or R in the simple
cubic Brillouin zone, while two other sets of frequencies
are consistent with closed surfaces at X or M. A fourth
branch appears to be part of a larger, possibly open
sheet of Fermi surface. While no band structure calcula-
tions exist for this material for comparison with the
data, it is hoped that the present work will stimulate
additional effort in this important class of materials.

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