

find

$$\begin{aligned} Q^{95} &= (0.12 \pm 0.03) \times 10^{-24} \text{ cm}^2, \\ Q^{97} &= (1.1 \pm 0.2) \times 10^{-24} \text{ cm}^2. \end{aligned} \quad (4.10)$$

This result is independent of f within the quoted error limits.

V. CONCLUSIONS

The results of the present NMR investigation of molybdenum metal are remarkably similar to those obtained in our previous study of tungsten. Both of these metals are distinguished by very small electronic specific heats. This is a characteristic property which is shared by all transition metals and alloys with electron/atom ratios near six. On the basis of a rigid-band model this behavior may be interpreted as a minimum in the density-of-states curve for $n \approx 6$. Since all of the conduction electron contributions to the nuclear spin-lattice relaxation depend explicitly on the magnitude of $N(\zeta_0)$, the observed relaxation times in molybdenum and tungsten are quite long. Furthermore, the spin-dependent contributions to the Knight shift are also expected to be small, since these depend (through the magnetic susceptibility) on the density of states. The orbital susceptibility, on the other hand, is determined primarily by the energy width of the d band and the relative number of occupied states, and is therefore not expected to be as strongly influenced by the small value of $N(\zeta_0)$ as the spin susceptibilities. Thus, the conclusion derived from our NMR experiments that the orbital

magnetization is the dominant contributor to the Knight shift and magnetic susceptibility in molybdenum and tungsten appears to be reasonable.

Because of uncertainties in the hyperfine-field estimates the analysis of the Knight shift and relaxation data did not provide any quantitative information concerning the magnitude of electron-phonon and electron-electron interactions in molybdenum. It may only be concluded that the s -electron specific heat is enhanced at most by a factor of about 3 by these many-body effects. This conclusion hinges, of course, on the reliability of the tight-binding approximation.

The detection of a quadrupolar spin-lattice relaxation process in molybdenum due to the conduction electrons was made possible by the existence of two isotopes with nearly identical nuclear magnetic moments but quite different electric quadrupole moments. This mechanism makes a significant contribution to the observed T_1 of ^{97}Mo because the ratio Q/μ is relatively large for this isotope. The molybdenum quadrupole moments obtained in the present work appear to represent the first quantitative estimates of Q^{95} and Q^{97} .

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Errata

Cerium Magnesium Nitrate Temperature Scale from Nuclear Orientation, R. B. FRANKEL, D. A. SHIRLEY, AND N. J. STONE [Phys. Rev. **140**, A1020 (1965)]. Table I on p. A1022 contains errors in the first 8 entries of each of the first two columns. The first eight rows should read:

$(H/T)_{\text{initial}}$ $kG^{\circ}K^{-1}$	$(S/R)_{\text{calc}}$	$1/T_s^*$	$(1/T)_{\text{DR}}$	$(1/T)_{\text{FSS}}$
0.8	0.692	20	20	20
1.6	0.688	40	40	40
2.5	0.682	60	60	60
3.3	0.673	80	80	80
4.2	0.661	100	100	100
5.0	0.647	120	120	120
5.9	0.631	140	140	140
6.8	0.611	160	160	160

We thank Dr. R. P. Hudson for calling our attention to the erroneous values. These errors were completely unrelated to the research reported in our paper, but arose from a computational mistake. These entries were given simply to indicate that our data for $T > 0.006^{\circ}\text{K}$ agree with the DR scale, although they do not stringently test it. None of our conclusions are altered.