**High-T$_c$ superconductivity does not originate in cuprate-planes.**

JOHN D. DOW, Arizona State U. — CuO$_2$ planes are not needed for high-T$_c$ superconductivity, as demonstrated by Sr$_2$YRuO$_6$ and Ba$_2$YRuO$_6$, weakly doped on Ru sites with Cu, with onset T$_c$'s of 49K and 93K, but no cuprate-planes. Gd$_{2-x}$Ce$_x$Sr$_2$Cu$_2$RuO$_{10}$ and GdSr$_2$Cu$_2$RuO$_8$ do not superconduct in their cuprate-planes, which are magnetic, but in their SrO layers (with onset T$_c$ ≈45K). High-temperature superconductivity resides in SrO, BaO, or interstitial oxygen regions, not in cuprate-planes. In YBa$_2$Cu$_3$O$_7$, Harshman *et al.* [1], using muon spectroscopy, found s-wave character, not d-wave character (to better than one percent) which measures the *superconducting* layers. This contradicts scanning tunneling microscopy and photoemission, which claim d-wave behavior after measuring *near-surface* layers (which often do not superconduct). High-temperature superconductivity originates in the BaO, SrO, or interstitial oxygen regions, not in the cuprate planes. [1] D. R. Harshman, *et al.*, Phys. Rev. **B 69**, 174505 (2004).

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