

Electrically Induced Ferromagnetism at Room Temperature in Cobalt-Doped Titanium Dioxide, *SCIENCE*, VOL 332, 1065 (2011),

Y. Yamada, K. Ueno, T. Fukumura, H. T. Yuan, H. Shimotani,
Y. Iwasa, L. Gu, S. Tsukimoto, Y. Ikuhara, M. Kawasaki

Report 7

1. Consider the carrier-mediated mechanism for the emergence of ferromagnetism in $\text{Ti}_{0.9}\text{Co}_{0.1}\text{O}_2$, or why the increase of carrier density by applying an electric field induces the ferromagnetism of this compound.
2. List up ferrimagnetic compounds more than 10.
3. Drawn schematically $1/\chi_{\text{ferri}}$ (T) as the function of temperature.