We have developed a highly novel gauge transformation which solves the HTS problem in closed form. We find $T_c$ is highest for ferromagnetic spin fluctuations. The pairing is $p$-wave, singlet in this case.

We find

$$T_c = 1.14 \omega_s e^{-\frac{1}{\lambda}} \quad [1]$$

where

$$\lambda = \left(\frac{J}{W}\right)^2 \text{ for } JCW \quad [2]$$

and

$$\lambda = \left(\frac{W}{J}\right)^2 \text{ for } J > W \quad [3]$$

These results are currently being verified experimentally. Estimates show that $10^{12}$/year will be saved world wide if these novel materials are used in 10% of the world wide electric power industry. $H_{c2} \sim 10^{13} T$ and $j_c \sim 10^{13} \text{ Amps/cm}^2$ are predicted by the theory.