Fluctuation mechanism of room superconductivity

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Spin-phonon-electron correlations in high-temperature superconductors (HTSC) are considered in order to substantiate the possibility of increasing the critical temperature to 300 K and above.Criteria for the synthesis of new HTSC materials with a higher critical temperature are given.The values of the spectrum of spin waves are found, which resonantly interact with one of the three phonon modes, as a result of which coupled vibrations arise.The expression for the critical temperature, taking into account the spectra of spin-phonon vibrations, in the quasilinear approximation allows one to analyze its change with increasing pressure.