

spin-Peierls transition

A magneto-elastic transition that occurs in quasi one-dimensional antiferromagnetic materials when the magnetic free energy decrease due to the formation of singlet spin pairs outweighs the increase in lattice free energy occurring as a result of the dimerization of the regular array. Example: The transition in tetrathiafulvalenium bis(dithiolene)cuprate at 12 K.

Source:

PAC, 1994, 66, 577 (*Definitions of terms relating to phase transitions of the solid state (IUPAC Recommendations 1994)*) on page 591