

## Superconductivity and pseudo-gap behavior in organic Mott systems, $\kappa$ -(BEDT-TTF)<sub>2</sub>X with triangular lattice

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The  $\kappa$ -(BEDT-TTF)<sub>2</sub>X salts are recognized as model systems for Mott physics. X=Cu[N(CN)<sub>2</sub>]Cl compound, which has an anisotropic triangular lattice, is a Mott insulator with an antiferromagnetic transition at 25 K. Superconductivity appears under pressure or the substitution of X by (Cu[N(CN)<sub>2</sub>]Br and Cu(NCS)<sub>2</sub>). X=Cu<sub>2</sub>(CN)<sub>3</sub> is also a Mott insulator and a more isotropic triangular-lattice system. It does not show a long range magnetic order down to low temperatures due to strong spin frustrations. It undergoes a superconducting phase transition at 4 K under pressure. The  $\kappa$ -(BEDT-TTF)<sub>4</sub>Hg<sub>3- $\delta$</sub> Br<sub>8</sub> is a doped Mott insulator with a triangular lattice system due to non-stoichiometry of Hg. We have performed <sup>13</sup>C NMR measurements in superconducting states of the four organic superconductors above. For all of the superconducting phases, 1/T<sub>1</sub> was found to show the T<sup>3</sup> temperature dependence and no Hebel-Slichter peak. The pseudo-gap behavior is only observed in deuterated-Cu[N(CN)<sub>2</sub>]Br and Cu[N(CN)<sub>2</sub>]Cl, which locates just on Mott boundary. This fact suggests that the pseudo-gap behavior is related to not only Mott transition but also the spin frustrations.