

Abstract Submitted  
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**Five Principles of Photoemission of High Temperature Superconducting Cuprates Deduced from the Dipolon Theory** RAM SHARMA, University of Illinois at Chicago, IL — In the process of the theoretical explanation of the observed photoemission result of high temperature superconducting cuprates we have been able to derive by means of the dipolon theory [1,2] five principles of photoemission in various situations of doping, temperature and Fermi level crossing. These five principles interrelate the peak-dip-hump phenomenon, the kink structure (including the predicted high energy kinks [3]) in the quasiparticle energy dispersion and electron velocities at different energies with respect to the characteristic dipolon excitations in the system. Details of the five principles will be presented. The theory contains Mott renormalization and all important and necessary electron-electron correlations.

- [1] R.R. Sharma, *phys. rev.* **63**, 054506 (2001)
- [2] R.R. Sharma, *Physica* **C439**,47 (2006).
- [3] R.R. Sharma, *Physica* **C468**190 (2008).

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