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Slow and correlated fractal growth of organic material due to energetic cluster deposition DEEDER AURONGZEB, University of Maryland, BHARGAVA KANCHIBOTLA COLLABORATION — Growth mechanisms in organic thin-film deposition are crucial for tailoring growth morphologies and electronic properties. One problem with organic molecule is that they exhibit high sticking co-efficient and tends not to be planer with thickness like their inorganic counter part. We report surface correlation evolution in energetic cluster vapor deposited organic light emissive material tris (8-hydroxyquinoline) aluminum using phase modulated atomic force microscopy. For low thickness (5nm), photoluminescence measurement shows the emission peak is shifted by $\sim 0.4\text{eV}$ toward lower wavelength.

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