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**Magnetic Characterization of Bithermally Deposited Iron Phthalocyanine Thin Films** SANTOS FUENTES, THOMAS GREDIG, Cal State Univ- Long Beach — Metallo-phthalocyanine thin films are best known for applications based on their optical and electronic properties. Amongst the family of metallo-phthalocyanines, the iron compound stands out with unique magnetic properties. The grain size of iron phthalocyanine can be tuned with the deposition temperature. Higher substrate growth temperatures lead to larger coercivity values in the magnetic hysteresis loop below 5 K, when measured at 100 Oe/s. We expand this idea and grow iron phthalocyanine thin films in two thermal stages. Each layer of iron phthalocyanine is grown at a different temperature. We compare the magnetic and physical properties of these bithermally grown heterostructures to the control samples deposited with a single growth temperature.

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