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**Normal versus anomalous roughening of electrodeposited Prussian Blue layers** ANDRE PASA, MARILIA ALAMINI, RENE DA SILVA, VINICIUS ZOLDAN, EDUARDO ISOPPO, Laboratorio de Filmes Finos e Superficies, Departamento de Fisica, Universidade Federal de Santa Catarina, 88.040-900 Florianopolis, SC, Brazil, UBIRAJARA RODRIGUES-FILHO, Instituto de Quimica de Sao Carlos, USP, 13.564-970 Sao Carlos, SP, Brazil, FABIO AARAO REIS, Instituto de Fisica, Universidade Federal Fluminense, Av. Litoranea s/n, Niteroi, RJ, 24210-340, Brazil, ALOISIO KLEIN, Laboratorio de Materiais, UFSC, C.P. 476, Florianopolis, SC, Brazil. — Electrochemically deposited Prussian Blue films on gold over silicon substrates are studied by various microscopy methods. Film surface features and roughness scaling suggest faceted anomalous roughening. However, accounting for the time increase of adsorption rate, which reduces surface diffusion lengths as the film grows, a scenario of diffusion-dominated growth (Mullins-Herring class) emerges. A significant effect of the diffusion-to-deposition ratio on the roughness scaling is found, consistently with the close packed surface morphology and formation of a film with single crystalline grains. That effect also explains the striking difference of exponents obtained from the anomalous and normal scaling interpretations.

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