Narrowing of Terrace-width Distributions During Growth on Vicinals[1] AJMI BH. HAMOUDA, Univ. of Maryland, College Park (UM) & Univ. Monastir, Tunisia, A. PIMPINELLI, UM & U.B.P.Clermont-2 & Science Attache, French Consulate, Houston , T.L. EINSTEIN, UM — Using kinetic Monte Carlo simulations for a generic minimal SOS model of vicinal surfaces, we compute the terrace-width distributions (TWDs) as a function of incident flux during homoepitaxial growth. We show that the distribution narrows markedly,[2] as though there were a flux-dependent repulsion between steps, until the step picture fails at high flux. Using a Fokker-Planck approach[3], we analyze the evolution and saturation of this narrowing. We compare with a 1D model[4] and with our simulations for narrowing due to an Ehrlich-Schwoebel barrier.

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