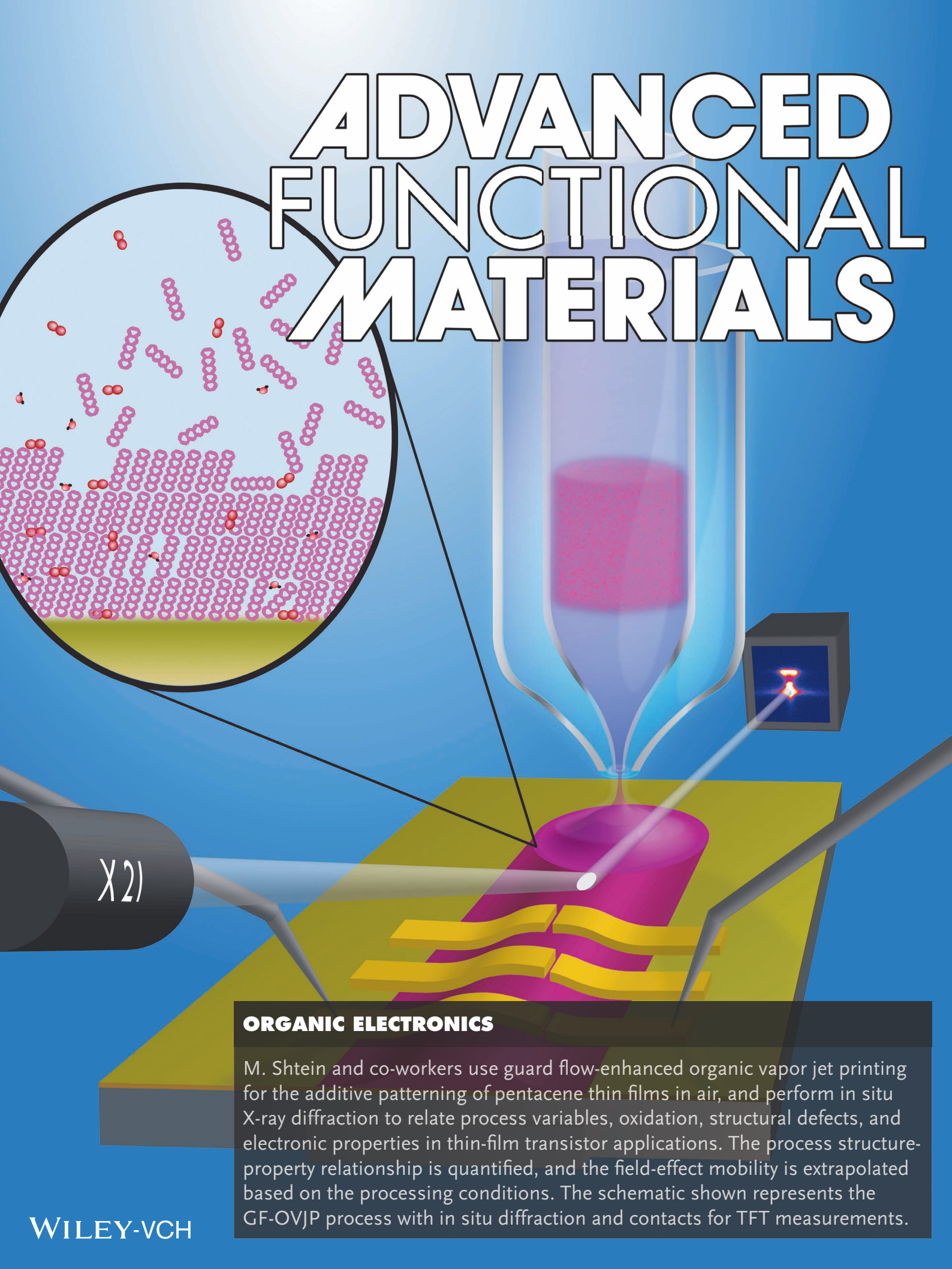
ADVANCED FUNCTIONAL MATERIALS



ORGANIC ELECTRONICS

M. Shtein and co-workers use guard flow-enhanced organic vapor jet printing for the additive patterning of pentacene thin films in air, and perform in situ X-ray diffraction to relate process variables, oxidation, structural defects, and electronic properties in thin-film transistor applications. The process structure-property relationship is quantified, and the field-effect mobility is extrapolated based on the processing conditions. The schematic shown represents the GF-OVJP process with in situ diffraction and contacts for TFT measurements.

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