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Band Bending in Polymer Blends of PVDF-TrFE/P3HT by Poling the Ferroelectric Component FREDDY WONG, GODOHALDO PEREZ, MANUEL BONILLA, DANIEL COLON, Univ of Puerto Rico - Humacao, JUAN COLON, IHOR KETSMAN, ALEXI GRUVERMAN, PETER DOWBEN, LUIS ROSA, P. SHARMA, Univ Nebraska Lincoln — Ferroelectric polarization is an attractive physical property for non-volatile switching, because it can be used as two binary levels for digital electronics. Here we present an integrated electronic solution by blending a semiconducting polymer P3HT and a ferroelectric co-polymer PVDF. The combination of the two polymers resulted in a ferroelectric film that by poling the ferroelectric part electronic band bending is observe on the electronic structure of the semiconducting P3HT.

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