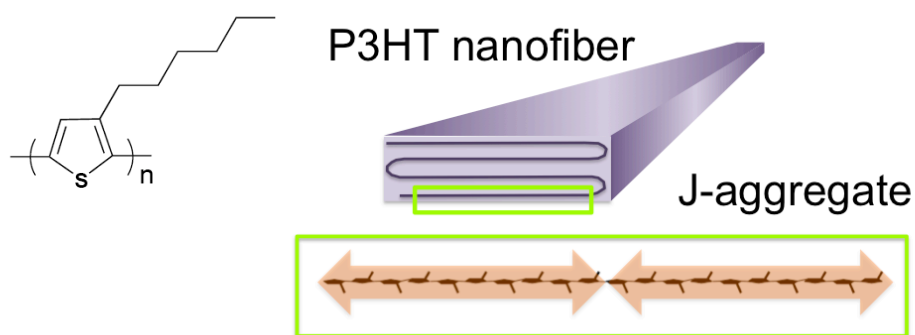
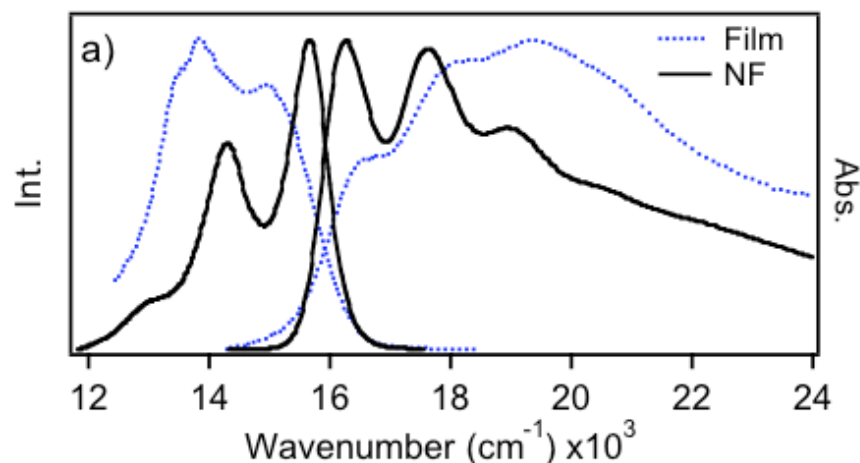
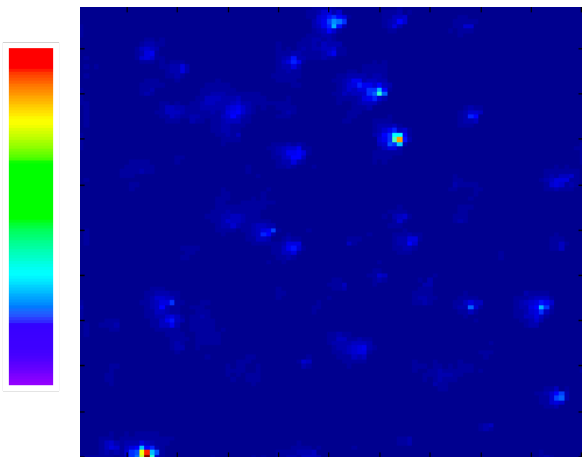


Uncovering and Understanding Morphology-Dependent Charge Transport and Trapping in Polymer Photovoltaic Materials

John K. Grey, Department of Chemistry and Chemical Biology
University of New Mexico, Albuquerque, NM 87131



Single nanofibers!



Nanofibers of poly-3-hexylthiophene (P3HT) exhibit remarkable intra-chain ordering in self-assembled nanofiber structures. Electronic coupling between chains is virtually zero which gives rise to a “J-aggregate” type coupling that has not been observed previously in these systems.