Manuscript Title:

Measurement of Exciton Transport in Conjugated Polymer Nanoparticles

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Dear Editors,

Attached is an electronic copy of an original manuscript titled "*Measurement of Exciton Transport in Conjugated Polymer Nanoparticles*". Please consider this manuscript for publication in **J. Phys. Chem. C.** In this manuscript, we describe a novel approach for elucidating exciton transport in conjugated polymers, using time-resolved and steady-state luminescence spectroscopy on conjugated polymer nanoparticles, combined with a novel modeling approach that explicitly includes quenching by defects. We present evidence indicating that quenching by intrinsic defects (likely polarons) reduces the effective exciton diffusion length by a factor of 2. We propose that quenching by intrinsic defects such as photogenerated polarons is at least partly responsible for the rather broad range of reported exciton transport parameters in the literature, noted by key researchers in the field, such as S. Forrest. Given the broad, current interest in the photophysics and related transport phenomena of nanoscale systems, the need for improved spectroscopic methods for such measurements, as well as the implications for advanced nanoparticle-based imaging and for electro-optic applications involving conjugated polymers and organic semiconductors, we believe this work is suitable for publication in **J. Phys. Chem. C.**

In summary, we believe this work represents a significant advance in the understanding of key photophysical phenomena in organic semiconductors, as well as the development of novel fluorescence based imaging agents. We therefore submit this manuscript for consideration for publication in **J. Phys. Chem. C.** Thank you for your consideration. We look forward to your favorable response.

Sincerely,

Jason D. McNeill

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This manuscript is not being considered by any other journal.