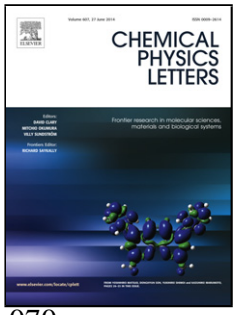

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Short-circuit current model of organic solar cells

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Abstract:

A physical model is presented for short-circuit current of organic solar cells based on the flow of both majority and minority carriers. According to the proposed model, the temperature, free carrier generation rate, light intensity, donor and acceptor dopant concentration dependences of short-circuit current can be well described. Good agreement between the calculated results and experimental data is found.

Keywords: Short-circuit current, organic solar cells, majority carrier flow, minority carrier flow

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