



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

Mail Stop 3030

August 24, 2009

Gary Gatchell
Chief Financial Officer
Ascent Solar Technologies, Inc.
8120 Shaffer Parkway
Littleton, Colorado 80127

**Re: Ascent Solar Technologies, Inc.
Form 10-K for the fiscal year ended December 31, 2008
Filed March 12, 2009
File No. 001-32919**

Dear Mr. Gatchell:

We have completed our review of your Form 10-K and related filings and do not, at this time, have any further comments.

Sincerely,

Brian R. Cascio
Accounting Branch Chief