

Ion-molecule reactions at thermal energies

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Abstract. Ion-molecule reactions is a generic word for reactions involving ions (both positive and negative), radicals and stable neutrals. In this presentation, use of the flowing afterglow technique to study ion-molecule reactions at thermal energies is demonstrated using the examples of positive ion-negative ion mutual neutralization of molecular nitrogen ion (N_2^+) with F^- and the reaction of atomic nitrogen with SF_n ($n = 1$ to 5) to form NF.

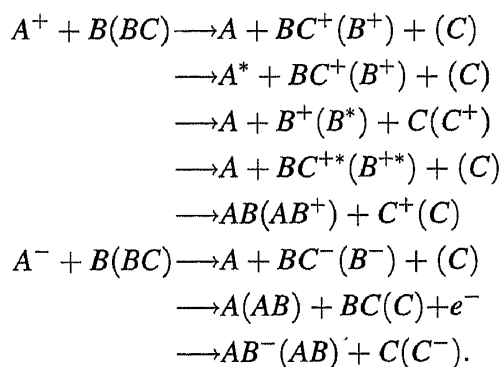
Keywords. Ion-molecule reactions; afterglow; radicals; mutual neutralization; fluorescence.

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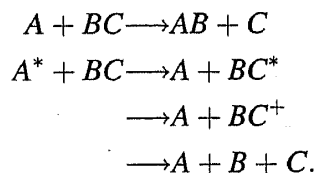
1. Introduction

Ion-molecule reactions is a generic name used for the following type of reactions:

Ion-molecule (neutral) reactions



Neutral (radical) reactions



Mutual neutralization

