NSRDS-NBS 26. Ionization Potentials, Appearance Potentials, and Heats of Formation of Gaseous Positive Ions. J. L. FRANKLIN, J. G. DILLARD, H. M. ROSENSTOCK, J. T. HERRON, K. DRAXL, AND F. H. FIELD. Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402—Price $4.00.

This is a compilation of ionization and appearance potentials of positive ions published from 1955 through June 1966. The compilation lists the ion formed, the parent species from which it was formed, the other products of the process, the threshold energy for the formation of this ion, and the method by which this data was obtained. Where feasible, the heat of formation at 298° K. of the positive ion has been computed for each entry using auxiliary thermochemical data. From these computed values, "best" values have been chosen.

NBS Tech. Note 482. Superconductive Materials and Some of Their Properties. B. W. ROBERTS. Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402—Price $1.25.

This is a noncritical compilation of data on superconductive materials that has been extracted from a portion of the literature published up to early 1968. The properties concerned are composition, critical temperature, critical magnetic field, crystallographic data, and lowest temperature tested for superconductivity. The compilation also includes bibliography, general reference review articles, and a special tabulation of high magnetic field superconductors.

NBS Tech. Note 484. A Review of Rate Constants of Selected Reactions of Interest in Re-Entry Flow Fields in the Atmosphere. M. H. BORTNER. Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402—Price 60 cents.

The major reactions normally encountered in flow field re-entry calculations for the oxygen-nitrogen system are reviewed and a rate constant value for each reaction is recommended. Collisional ionization processes, charge exchange reactions and attachment-detachment reactions are included. Rate constant coefficients to fit the equation $k = aT^b e^{-c/T}$ are reported in tabular form for the selected rate constant. The data are also graphed as log k *vs.* $T(K)$. In all, over 20 forward and reverse reactions are reviewed. Additionally, a large number of rate constant values for reactions which also effect flow field calculations are given.

These documents have been reviewed by the Editorial Board of the National Bureau of Standards.

CORRECTION

In the article "Phase Diagram of the Lithium Iodide–Potassium Iodide System and Densities of the Lithium Iodide–Potassium Iodide and Lithium Bromide–Potassium Bromide Eutectics" by C.H. Liu and L.R. Lieto [J. CHEM. ENG. DATA 14, 83 (1969)], the following corrections to Figure 1 should be noted.

Page 83, Figure 1, the freezing point of pure lithium iodide should be indicated as 469° C.

Page 83, Figure 1, the freezing point of pure potassium iodide should be indicated as 681° C.

The authors thank A.S. Dworkin of this laboratory for detecting these errors.