Partial Bibliography for "Lectures on Chemical Reaction Networks"

[A] Aris, R., Introduction to the Analysis of Chemical Reactors, Prentice-Hall, Inc., Englewood Cliffs, New Jersey (1965).

[E] Edelstein, B. A biochemical model with multiple steady states and hysteresis, J. Theor. Biol., **29**, 57 (1970).

[F1] Feinberg, M. On chemical kinetics of a certain class, Arch. Rational Mech. Anal., **46**, 1, (1972).

[F2] Feinberg, M. Complex balancing in general kinetic systems, Arch. Rational Mech. Anal., **49**, 187 (1972).

[F3] Feinberg, M., Mathematical Aspects of Mass Action Kinetics, Chapter 1 in Chemical Reactor Theory: A Review (eds. N. Amundson and L. Lapidus) Prentice-Hall (1977).

[F5] Fife, Paul, Mathematical Aspects of Reacting and Diffusing Systems, Lecture Notes in Biomathematics No. 28, Springer-Verlag, Berlin-Heidelberg-New York (1979).

[FH1] Feinberg, M. and F. Horn, Dynamics of open chemical systems and the algebraic structure of the underlying reaction network, Chem. Eng. Sci., **29**, 775 (1974).

[FH2] Feinberg, M. and F.J.M. Horn, Chemical mechanism structure and the coincidence of the stoichiometric and kinetic subspaces, Arch. Rational Mech. Anal., **66**, 83 (1977) [Corrigendum appended to this bibliography]

[G] Gantmacher, F., Matrix Theory, Chelsea Press, New York (1959).

[GP] Glansdorff, P. and I. Prigogine, Thermodynamic Theory of Structure, Stability and Fluctuations, J. Wiley & Sons, New York (1971).

[H] Harary, F., Graph Theory, Addison-Wesley, Reading, Massachusetts (1972).

[H3] Horn, F., Necessary and sufficient conditions for complex balancing in chemical kinetics, Arch. Rational Mech. Anal., **49**, 172 (1972)

[H4-H6] On a connexion between stability and graphs in chemical kinetics, Proc. Roy. Soc. London A, **334** 299 (1973).

[HJ] Horn, F. and R. Jackson, General mass action kinetics, Arch. Rational Mech. Anal., **47**, 81 (1972).

[HS] Hirsch, M.W. and S. Smale, Differential Equations, Dynamical Systems and Linear Algebra, Academic Press, New York (1974).

[K] Krambeck, F. J., The mathematical structure of chemical kinetics in homogeneous single phase systems, Arch. Rational Mech. Anal., **38**, 317 (1970).

[L1] Lorenz, E.N., Deterministic nonperiodic flow, J. Athmosph. Sc. **20,** 130-141 (1963).

[NSS] Nickerson, H.K. D. C. Spencer and N.E. Steenrod, Advanced Calculus, Van Nostrand, Princeton, N.J. (1959).

[S] Shapiro, Arnold, The Statics and Dynamics of Multicell Reaction Systems, Ph.D. thesis, University of Rochester (1975).

[SH] Shapiro, A. and F. Horn, On the possibility of sustained oscillations, multiple steady states, and asymmetric steady states in multicell reaction systems, Math. Biosciences, **44**, 19 (1979). NOTE: There are several errors in this. A corrigendum appeared in a later issue of the same journal, but I don't have the citation.]

[SW] Stoer and Witzgal, Convexity and Optimization in Finite Dimensions, Springer-Verlag, Berlin-Heidelberg-New York (1970).

Corrigendum: Chemical mechanism structure and the coincidence of the stoichiometric and kinetic subspaces, Arch. Rational Mech. Anal., **66**, 83 (1977)

Definition 8 should read as follows: Two complexes $y \in \mathscr{C}$ and $y' \in \mathscr{C}$ are directly linked if $y \to y'$ or if $y' \to y$; if y and y′ are directly linked we write $y \leftrightarrow y'$. Two complexes $y \in \mathscr{C}$ and $y' \in \mathscr{C}$ are linked if any of the following conditions are satisfied:

1. $y = y'$
2. $y \leftrightarrow y'$
3. $\mathscr{C}$ contains a subset $\{y_1, y_2, \ldots, y_k\}$ such that
$$y \leftrightarrow y_1 \leftrightarrow y_2 \leftrightarrow \ldots \leftrightarrow y_k \leftrightarrow y'.$$

If y and y′ are linked we write $y \Leftrightarrow y'$. The equivalence relation $\Leftrightarrow$ induces a partition of $\mathscr{C}$ into a family $\{\mathscr{L}_\theta\}$ of equivalence classes called the linkage classes of the mechanism. The number of linkage classes of a mechanism will be denoted by the symbol ℓ.