

Table IV. D_{8h} Character Table

| | E | 2C ₈ | 2C ₄ | 2C ₂ ³ | C ₂ | 4C ₂ ' | 4C ₂ '' | i | 2S ₈ | 2S ₄ | 2S ₈ ³ | σ _b | 4σ _d | 4σ _v | |
|-----------------|----|-----------------|-----------------|------------------------------|----------------|-------------------|--------------------|----|-----------------|-----------------|------------------------------|----------------|-----------------|-----------------|---|
| A _{1g} | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | s, d _z ² |
| A _{2g} | 1 | 1 | 1 | 1 | 1 | -1 | -1 | 1 | 1 | 1 | 1 | 1 | -1 | -1 | |
| B _{1g} | 1 | -1 | 1 | -1 | 1 | 1 | -1 | 1 | -1 | 1 | -1 | 1 | 1 | -1 | |
| B _{2g} | 1 | -1 | 1 | -1 | 1 | -1 | 1 | 1 | -1 | 1 | -1 | 1 | -1 | 1 | |
| E _{1g} | 2 | √2 | 0 | -√2 | -2 | 0 | 0 | 2 | -√2 | 0 | √2 | -2 | 0 | 0 | d _{xz} ; d _{yz} |
| E _{2g} | 2 | 0 | -2 | 0 | 2 | 0 | 0 | 2 | 0 | -2 | 0 | 2 | 0 | 0 | d _{xy} ; d _{x²-y²} |
| E _{3g} | 2 | -√2 | 0 | √2 | -2 | 0 | 0 | 2 | √2 | 0 | -√2 | -2 | 0 | 0 | |
| A _{1u} | 11 | 1 | 1 | 1 | 1 | 1 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | |
| A _{2u} | 1 | 1 | 1 | 1 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 1 | 1 | p _z ; f _z ³ |
| B _{1u} | 1 | -1 | 1 | -1 | 1 | 1 | -1 | -1 | 1 | -1 | 1 | -1 | -1 | 1 | |
| B _{2u} | 1 | -1 | 1 | -1 | 1 | -1 | 1 | -1 | 1 | -1 | 1 | -1 | 1 | -1 | |
| E _{1u} | 2 | √2 | 0 | -√2 | -2 | 0 | 0 | -2 | √2 | 0 | -√2 | 2 | 0 | 0 | p _x ; f _{xz} ² ; p _y ; f _{yz} ² |
| E _{2u} | 2 | 0 | -2 | 0 | 2 | 0 | 0 | -2 | 0 | 2 | 0 | -2 | 0 | 0 | f _{xy} ; f _{z(x²-y²)} |
| E _{3u} | 2 | -√2 | 0 | √2 | -2 | 0 | 0 | -2 | -√2 | 0 | √2 | 2 | 0 | 0 | f _{x(x²-3y²)} ; f _{y(3x²-y²)} |

for 2S₈ and 2S₈³ should be interchanged. A similar error occurs in two other published D_{8h} tables.^{1,2} One of these other published tables² contains other typographical errors as well. A third published table³ has several characters missing. The revised Table IV shown here should replace previously published versions. We are indebted to Dr. J. Duerksen for pointing out this error.

- (1) F. A. Cotton, "Chemical Applications of Group Theory", 2nd ed, Wiley-Interscience, New York, N.Y., 1971, p 360.
- (2) A. Streitwieser, Jr., in "Topics in Nonbenzenoid Aromatic Chemistry", Vol. 1, T. Nozoe et al., Ed., Hirokawa Publishing Co., Inc., Tokyo, 1973, p 225.
- (3) J. A. Salthouse and M. J. Ware, "Point Group Character Tables", Cambridge University Press, London, 1972, p 47.

Reactivity-Selectivity Relationships. II. A Simple Model to Explain Nucleophile-Electrophile Combination Reactions and Its Implications for the Reactivity-Selectivity Principle [*J. Am. Chem. Soc.*, **98**, 776 (1976)]. By ADDY PROSS, Department of Chemistry, Ben Gurion University of the Negev, Beer Sheva, Israel.

Page 778, column 1, line 28: A line of print was inadvertently omitted from the text. The sentence should read: "For cation-anion combination reactions this range extended over six orders of magnitude."

Kinetic Applications of Electron Paramagnetic Resonance Spectroscopy. XXIV. Neophyl Rearrangements [*J. Am. Chem. Soc.*, **98**, 1224 (1976)]. By B. MAILLARD and K. U. INGOLD,* Division of Chemistry, National Research Council of Canada, Ottawa, Canada.

On page 1225 eq 2-5 should read:

$$1U: \log(k_i/2k_t^R/M) = -(1.4 \pm 0.8) - (6.8 \pm 1.0)/\theta \quad (2)$$

$$4U: \log(k_i/2k_t^R/M) = -(1.3 \pm 0.5) - (6.6 \pm 0.5)/\theta \quad (3)$$

$$2U: \log(k_i/2k_t^R/M) = (1.1 \pm 1.3) - (11.7 \pm 1.8)/\theta \quad (4)$$

$$3U: \log(k_i/2k_t^R/M) = (2.9 \pm 2.3) - (14.2 \pm 2.9)/\theta \quad (5)$$

pH Dependence of the Nitrotyrosine-248 and Arsanilazotyrosine-248 Carboxypeptidase A Catalyzed Hydrolysis of O-(trans-p-Chlorocinnamoyl)-L-β-phenyllactate [*J. Am. Chem. Soc.*, **98**, 1940 (1976)]. By JUNGHUN SUH and EMIL THOMAS KAISER,* Department of Chemistry, University of Chicago, Chicago, Illinois 60637.

The correct format for eq 2 is shown below:

$$v = \frac{d[S]}{dt} = \frac{k_{cat}[E_0][S]}{K_{mapp} + [S] + \frac{K_{mapp}}{K_p}([S_0] - [S])} \quad (2)$$

Book Reviews*

Advances in Chemical Physics. Volume XXXIII. Edited by I. PRIGOGINE and S. A. RICE. John Wiley & Sons, Inc., New York, N.Y. 1975. ix + 462 pp. \$32.00.

This volume, dedicated to the late Lothar Meyer, has chapters on eight different topics. Mobilities of charge carriers in superfluid liquid helium, including theoretical models for the carriers and experimental results, are discussed by K. W. Schwarz. The chapter by T. Kihara and A. Koide on the intermolecular forces in crystals of D₂, N₂, O₂, F₂, and CO₂ deals with interactions in which orientations as well as interparticle distances are important. R. Cerf discusses experimental results and the theory of cooperative conformational kinetics for natural and synthetic polymers. R. G. Woolley uses a nonrelativistic formalism to derive the Hamiltonian for a closed system consisting of atoms and their electric field. A. Ben-Reuven applies linear response theory to obtain general expressions for the shape of spectral lines of neutral gaseous molecules as affected by a weakly coupled external radiation field. D. G. Truhlar, C. A. Mead, and M. A. Brandt discuss

time-reversal invariance, in particular its application to scattering theory.

The last two chapters will have the most interest for persons concerned with the chemical reactivity of molecules of moderate size.

In the chapter on transition state stabilization energy, M. V. Basilevsky discusses quantum mechanical models for the transition state with particular attention to the question of which approximations are acceptable at the internuclear distances characteristic of transition states. The Evans-Polanyi (Hammond) rule for the variation of the position of the transition state with reactivity is derived, as are the Woodward-Hoffmann rules. The application of the transition state stabilization theory to Hammett and other linear free energy relationships is also discussed.

The chapter on the thermodynamics of systems evolving toward equilibrium, by D. G. B. Edelen, is of interest not only because of the increasing use of relaxation rate data, but also in connection with oscillating chemical reactions and with biological clocks.

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