

Bibliography

The bibliography consists of two parts:

Part I. Papers written in Roman characters;

Part II. Papers written in Cyrillic characters.

In Part I most of the papers are written in English, German, or French; the languages of a few other papers are indicated. In Part II the papers are written in Russian except for a few in which cases the language is again indicated.

The papers are arranged according to the alphabetic order of the authors' names. For papers which have more than one author, each name appears separately in the list.

Books are indicated by an asterisk*. The numbers at the end of the quotations refer to the sections where the papers or books are cited (P means Preface, A Appendix).

The bibliography contains 564 units, 527 of them in part I and 37 in Part II.

Part I

ABERTH, O.

[Aber] On the sum of graphs. *Rev. Franç. Rech. Operat.* 8 (1964), 353—358.
(2.5; 7.4; 7.5)

ABRAMSON, M., *see* [MoAb]

ÁDÁM, Á.

[Ádám] Research problem 2—10. *J. Comb. Theory* 2 (1967), 393. (7.8)

AIGNER, M.

[Aign] The uniqueness of the cubic lattice graph. *J. Comb. Theory* 6 (1969), 282—297.
(6.4)

AMIN, A. T.

[AmHa] (with S. L. HAKIMI), Upper bounds on the order of a clique of a graph. *SIAM J. Appl. Math.* 22 (1972), 569—573. (3.2; 3.6)

ANDERSON, S. S.

* [Ande] *Graph Theory and Finite Combinatorics*. Markham Publ. Co., Chicago 1970.

ANDERSON, JR., W. N.

[AnMo] (with T. D. MORLEY), Eigenvalues of the Laplacian of a graph. University of Maryland Technical Report TR-71-45, 1971. (2.1; 9.3)

ASCHBACHER, M.

[Asch] The non-existence of rank three permutation groups of degree 3250 and sub-degree 57. *J. Algebra* 19 (1971), 538—540. (6.5)

ASH, R. B.

[Ash] Topology and the solution of linear systems. *J. Franklin Inst.* 268 (1959), 453—463.
(1.4)

BABAI, L.

- [Bab1] Spectra of Cayley graphs. *J. Comb. Theory (B)*. (to appear) (5.5; 6.1; 7.8)
- [Bab2] Automorphism group and category of cospectral graphs. *Acta Math. Acad. Sci. Hung.* **31** (1978), 295–306. (5.2; 5.4; 6.1)
- [Bab3] Kospektrale Graphen mit vorgegebenen Automorphismengruppen. *Wiss. Z. TH Ilmenau* (to appear). (5.4; 6.1)

BAKER, G. A.

- [Bak1] Drum shapes and isospectral graphs. BNL 10088, Brookhaven National Laboratory, Long Island, New York 1966.
- [Bak2] Drum shapes and isospectral graphs. *J. Math. Phys.* **7** (1966), 2238–2242. (6.1; 8.4)

BALABAN, A. T.

- * [Bala] (ed. A. T. BALABAN) *Chemical Applications of Graph Theory*. Academic Press, London—New York—San Francisco 1976. (0)
- [BaHa] (with F. HARARY), The characteristic polynomial does not uniquely determine the topology of a molecule. *J. Chem. Doc.* **11** (1971), 258–259. (6.1)

BANNAI, E.

- [Balt] (with T. ITO), On finite Moore graphs. *J. Fac. Sci. Univ. of Tokyo* **20** (1973), 191–208. (6.2)

BASSALYGO, L. A.

- [Bass] Generalization of Lloyd's Theorem to arbitrary alphabet. *Problems of Control and Information Theory* **2** (1973), 25–28. (4.8)

BEHZAD, M.

- [BeCh1] (with G. CHARTRAND), An introduction to total graphs. In: *Theory of Graphs* (ed. P. ROSENSTIRHL), Dunod, Paris/Gordon and Breach, New York, 1967, pp. 31–33.
- * [BeCh2] (with G. CHARTRAND), *Introduction to the Theory of Graphs*. Allyn and Bacon Inc., Boston 1971. (0)
- [BeCN] (with G. CHARTRAND and E. A. NORDHAUS), Triangles in line graphs and total graphs. *Indian J. Math.* **10** (1968), No. 2, 109–120. (7.8)

BEINEKE, L.

- [Bein] Characterization of derived graphs. *J. Comb. Theory* **9** (1970), 129–135. (6.3; A)

BENSON, C. T.

- [Bens] Minimal regular graphs of girth eight and twelve. *Canad. J. Math.* **18** (1966), 1091–1094.
- [BeJa] (with J. B. JACOBS), On hearing the shape of combinatorial drums. *J. Comb. Theory (B)* **13** (1972), 170–178. (6.1; 8.4)
- [BeLo] (with N. E. LOSEY), On a graph of Hoffman and Singleton. *J. Comb. Theory (B)* **11** (1971), 67–79. (6.2)

BERGE, C.

- * [Ber1] *Théorie des Graphes et ses Applications*. Dunod, Paris 1958. (0; 2.5; 3.5; 7.8)
- * [Ber2] *Graphes et Hypergraphes*. Dunod, Paris 1970. (0)
- * [Ber3] *Graphs and Hypergraphs*. (Translation of [Ber2].) North-Holland Publ. Co., Amsterdam—London—New York 1973. (0)

BERLEKAMP, E. R.

- * [BeLS] (with J. H. VAN LINT and J. J. SEIDEL), A strongly regular graph derived from the perfect ternary Golay code. In: *A Survey of Combinatorial Theory* (ed. J. N. SRIVASTAVA, F. HARARY, C. R. RAO, G.-C. ROTA, S. S. SHRIKHANDE), North-Holland Publ. Co., Amsterdam—London—New York 1973, pp. 25–30.

BHAGAWANDAS

- [BhSh] (with S. S. SHRIKHANDE), Seidel-equivalence of strongly regular graphs. *Indian J. Statistics, Series A*, **30** (1968), 359–368.
- See also* [ShBh]

BIGGS, N. L.

- [Big1] Intersection matrices for linear graphs. In: *Combinatorial Mathematics and Its Applications* (ed. D. J. A. WELSH), Academic Press, London—New York 1971, pp. 15—23. (7.2)
- * [Big2] *Finite Groups of Automorphisms*. Cambridge University Press, Cambridge 1971. (5.2; 7.2)
- [Big3] Perfect codes in graphs. *J. Comb. Theory (B)* **15** (1973), 289—296. (4.8; 7.2)
- [Big4] Three remarkable graphs. *Canadian J. Math.* **25** (1973), 397—411. (7.2)
- * [Big5] *Algebraic Graph Theory*. Cambridge University Press, Cambridge 1974. (P; 4.2; 5; 5.1; 7.2)
- [Big6] Perfect codes and distance-transitive graphs. In: *Combinatorics, Proc. British Comb. Conf. 1973*, Cambridge 1974, pp. 1—8. (7.2)
- [Big7] Designs, factors and codes in graphs. *Quart. J. Math. Oxford (2)* **26** (1975), 113—119. (7.2)
- [Big8] Chromatic and thermodynamic limits. *J. Phys. A: Math. Gen.* **8** (1975), No. 10, L110—L112.
- [Big9] Automorphic graphs and the Krein condition. *Geometriae Dedicata* **5** (1976), No. 1, 117—127.
- [BiMe] (with G. H. J. MEREDITH), A theorem on planar partitions. In: *Proc. Fifth British Combinatorial Conference, Aberdeen 1975* (ed. C. St. J. A. NASH-WILLIAMS and J. SHEEHAN). Utilitas Mathematica Publishing Inc., Winnipeg 1976, pp. 73—78.
- [BiSm] (with D. H. SMITH), On trivalent graphs. *Bull. London Math. Soc.* **3** (1971), 155—158. (7.2)

BOERNER, H.

- * [Boer] *Darstellungen von Gruppen mit Berücksichtigung der Bedürfnisse der modernen Physik*. Springer-Verlag, Berlin—Göttingen—Heidelberg 1955; *Representations of Groups*. North-Holland Publ. Co., Amsterdam 1963. (5.2; 5.3)

BONDY, J. A.

- * [BoMu] (with U. S. R. MURTY), *Graph Theory with Applications*. American Elsevier Publishing Co., Inc., New York 1976. (0)

BOSE, N. K.

- [BoFS] (with R. FEICK and F. K. SUN), General solution to the spanning tree enumeration problem in multigraph wheels. *IEEE Trans. Circuit Theory* **20** (1973), 69—70. (7.6)

BOSE, R. C.

- [Bos1] Strongly regular graphs, partial geometries and partially balanced designs. *Pacific J. Math.* **13** (1963), 389—419. (3.4; 7.2)
- [Bos2] Graphs and designs. In: *Finite Geometric Structures and Their Applications*, Edizioni Cremonese, Roma 1973, pp. 1—104.
- [BoDo] (with T. A. DOWLING), A generalization of Moore graphs of diameter two. *J. Comb. Theory (B)* **11** (1971), 213—276. (6.2)
- [BoLa] (with R. LASKAR), Eigenvalues of the adjacency matrix of tetrahedral graphs. *Inst. Statist. mimeo series 571*, University of North Carolina, 1968; *Aequationes Math.* **4** (1970), 37—43. (6.4)
- [BoMe] (with D. M. MESSNER), On linear associative algebras corresponding to association schemes of partially balanced designs. *Ann. Math. Statist.* **30** (1959), 21—36. (6.4; 7.2)
- [BoSh] (with T. SHIMAMOTO), Classification and analysis of partially balanced incomplete block designs with two associate classes. *J. Amer. Stat. Assn.* **47** (1952), 151—184. (6.4)

BOTTEMA, O.

- [Bott] Über die Irrfahrt in einem Straßennetz. *Math. Z.* **39** (1935), 137—145. (8.5)

BRAUER, A.

- [BrGe] (with J. C. GENTRY), Some remarks on tournament matrices. *Linear Algebra and Appl.* **5** (1972), 311—318.

BRAUMAN, J. I., *see* [StBr]

BRIDGES, W. G.

[Br1] The polynomial of a non-regular digraph. *Pacific J. Math.* **38** (1971), 325–341. (3.1)

[Br2] A class of normal $(0,1)$ -matrices. *Canad. J. Math.* **25** (1973), 621–626.

BROOKS, R. L.

[BrSST] (with C. A. B. SMITH, A. H. STONE, and W. T. TUTTE), Dissection of a rectangle into squares. *Duke Math. J.* **7** (1940), 312–340. (1.5)

BROWN, T. A., *see* [RoBr]

BROWN, W.

[Brow] On the non-existence of a type of regular graphs of girth 5. *Canad. J. Math.* **19** (1967), 644–648. (7.1)

BRUALDI, R.

[Brual] Kronecker product of fully indecomposable matrices and of ultra strong digraphs. *J. Comb. Theory* **2** (1967), 135–139. (7.4)

BRUCK, R. H.

[Bruc] Finite nets, II. Uniqueness and imbedding. *Pacific J. Math.* **13** (1963), 421–457. (6.1)

RUSSEMAKER, F. C.

[BuČCS] (with S. ČOBELJIĆ, D. M. CVETKOVIĆ, and J. J. SEIDEL), Computer investigation of cubic graphs. Technological University Eindhoven, T. H.-Report 76-WSK-01; Cubic graphs on ≤ 14 vertices, *J. Comb. Theory (B)* **23** (1977), 234–235. (6.1; 9.3; A)

[BuCS] (with D. M. CVETKOVIĆ and J. J. SEIDEL), Graphs related to exceptional root systems. In: *Combinatorics (Coll. Mat. Soc. J. Bolyai 18, ed. A. HAJNAL and V. SÓS)*. North-Holland Publ. Co., Amsterdam—Oxford—New York 1978, Vol. I, pp. 185–191; Technological University Eindhoven, T. H.-Report 76-WSK-05, 1–91. (3.6; 6.1; 6.3)

[BuCv] (with D. M. CVETKOVIĆ), There are exactly 13 connected, cubic, integral graphs. *Univ. Beograd Publ. Elektrotehn. Fak., Ser. Mat. Fiz.*, No. 544—No. 576 (1976), 43–48. (6.1; 7.1; 9.4)

[BuS1] (with J. J. SEIDEL), Cubical graphs of order $2n \leq 10$. TH Eindhoven, Onderafdeling der Wiskunde, Notitie nr. 10, September 1968. (A)

[BuS2] (with J. J. SEIDEL), Symmetric Hadamard matrices of order 36. Technological University Eindhoven, Report 70-WSK-02; *Ann. N. Y. Acad. Sci.* **175** (1970), 66–79. (6.1; 6.6; 7.2)

CAMERON, P. J.

[Came] Partial quadrangles. *Quart. J. Math. Oxford* (2) **26** (1975), 61–73.

[CaGSS] (with J. M. GOETHALS, J. J. SEIDEL, and E. E. SHULT), Line graphs, root systems, and elliptic geometry. *J. Algebra* **43** (1976), 305–327. (6.3)

* [CaLi] (with J. H. VAN LINT), *Graph Theory, Coding Theory and Block Designs*. London Math. Soc. Lect. Note Ser. **19**, Cambridge University Press, Cambridge—London—New York—Melbourne 1975. (7.2)

[CaSe] (with J. J. SEIDEL), Quadratic forms over $GF(2)$. *Indag. Math.* **35** (1973), No. 1, 1–8.

CARLITZ, L.

[Carl] Enumeration of certain types of sequences. *Math. Nachr.* **49** (1971), 125–147. (7.5)

CARTER, R. W.

* [Cart] *Simple Groups of Lie Type*. John Wiley & Sons, Interscience, Chichester 1972. (6.3)

CHANG, L. C.

[Cha1] The uniqueness and non-uniqueness of the triangular association scheme. *Sci. Record* **3** (1959), 604–613.

[Cha2] Association schemes of partially balanced block designs with parameters $v = 28$, $n_1 = 12$, $n_2 = 15$ and $p_{11}^2 = 4$. *Sci. Record* **4** (1960), 12–18. (6.1; 6.3)

CHAO, C.-Y.

- [Chao] A note on the eigenvalues of a graph. *J. Comb. Theory (B)* 10 (1971), 301—302. (5.2)

CHARTRAND, G., *see* [BeCH 1], [BeCh 2], [BeCN]

CHELNOKOV, V. M., *see* [KeCh]

CHEN, W.-K.

- * [Chen] *Applied Graph Theory. Graphs and Electrical Networks* North-Holland Publ. Co., Amsterdam—London—New York 1971; Amsterdam—New York—Oxford 1976. (1.4)

CLAPHAM, C. R. J.

- [Clap] Triangles in self-complementary graphs. *J. Comb. Theory (B)* 15, (1973), 74—76. (3.3)

CLARKE, F. H.

- [Clar] A graph polynomial and its applications. *Discrete Math.* 3 (1972), 305—313. (1.4; 2.3)

CLATWORTHY, W. H., *see* [CoCl]

COATES, C. L.

- [Coat] Flow-graph solutions of linear algebraic equations. *IRE Trans. Circuit Theory* CT-6 (1959), 170—187. (1.4; 1.9)

ČOBELJIĆ, S., *see* [BuČCS]

COLLATZ, L.

- * [Col 1] *Eigenwertaufgaben mit technischen Anwendungen.* Akad. Verlagsges. Geest & Portig KG, Leipzig 1963. (2.7; 8.4; A)

- [Col 2] Einige Beziehungen zwischen Graphen, Geometrie und Kombinatorik. In: *Numerische Methoden bei graphentheoretischen und kombinatorischen Problemen* (ed. L. COLLATZ, G. MEINARDUS, H. WERNER), Birkhäuser, Basel—Stuttgart 1975, pp. 27—56.

- [CoSi 1] (with U. SINOGOWITZ), Spektren endlicher Grafen. *Abh. Math. Sem. Univ. Hamburg* 21 (1957), 63—77. (0.1; 0.3; 1.4; 2.7; 3.2; 3.3; 4.6; 6.1; 7.5; 8.1; 8.4; 9.5; A)

- [CoSi 2] (with U. SINOGOWITZ), Spektren endlicher Grafen. *Fiat Reviews of German Science 1939—1946, Pure Mathematics, part II*, 251—252. (1.4)

CONNOR, W. S.

- [Conn] The uniqueness of the triangular association scheme. *Ann. Math. Statist.* 29 (1958), 262—266.

- [CoCl] (with W. H. CLATWORTHY), Some theorems for partially balanced designs. *Ann. Math. Statist.* 25 (1954), 100—112. (7.2)

COOK, C. R.

- [Cook] A note on the exceptional graph of the cubic lattice graph characterization. *J. Comb. Theory (B)* 14 (1973), 132—136. (6.1; 6.4)

COOPER, C. D. H.

- [Coop] On the maximum eigenvalue of a reducible non-negative real matrix. *Math. Z.* 131 (1973), 213—217.

COTOH, M., *see* [HoMC]

COULSON, C. A.

- [Cou 1] Excited electronic levels in conjugated molecules. *Proc. Phys. Soc.* 60 (1948), 257—269. (8.1)

- [Cou 2] Notes on the secular determinant in molecular orbital theory. *Proc. Cambridge Phil. Soc.* 46 (1949), 202—205. (1.4)

- [CoJa] (with J. JACOBS), Conjugation across a single bond. *J. Chem. Soc.* (1949), 2805 to 2812.

- [CoLo] (with H. C. LONGUET-HIGGINS), The structure of conjugated systems, II: Unsaturated hydrocarbons and their heteroderivatives. *Proc. Roy. Soc. (London), Ser. A*, 192 (1947), 16—32. (3.2)

- [CoRu] (with G. S. RUSHBROOKE), Note on the method of molecular orbitals. *Proc. Cambridge Phil. Soc.* 36 (1940), 193—200. (3.2; 8.1)

- * [CoSt] (with A. STREITWIESER), Dictionary of π -Electron Calculations. Pergamon Press Inc., San Francisco 1965. (A)
- COXETER, H. S. M.
- * [Coxe] Regular Polytopes. Methuen, London 1948. (6.3)
- ČULIK, K.
- [Čuli] Zur Theorie der Graphen. Časopis Pěst. Mat. 83 (1958), 133—155. (2.5)
- CURTIS, C. W.
- * [CuRe] (with I. REINER), Representation Theory of Finite Groups and Associative Algebras. Interscience Publs., John Wiley & Sons, New York—London 1962. (5.2)
- See also [KəPa]
- CVETKOVIĆ, D. M.
- [Cve1] Bihromatičnost i spektar grafa (Serbo-Croatian). Mat. biblioteka, No. 41, Beograd 1969; pp. 193—194. (3.2)
- [Cve2] Connectedness of the p -sum of graphs. Univ. Beograd Publ. Elektrotehn. Fak., Ser. Mat. Fiz., No. 274—No. 301 (1969), 96—99. (2.5; 7.4)
- [Cve3] Spectrum of the graph of n -tuples. Univ. Beograd Publ. Elektrotehn. Fak., Ser. Mat. Fiz., No. 274—No. 301 (1969), 91—96. (2.6)
- [Cve4] A note on paths in the p -sum of graphs. Univ. Beograd Publ. Elektrotehn. Fak., Ser. Mat. Fiz., No. 302—No. 319 (1970), 49—51. (7.5)
- [Cve5] The Boolean operations on graphs — spectrum and connectedness. Booleove operacije nad grafovima — spektar i povezanost (summary). V. Kongres mat., fiz. i astr. na Jugoslavija, Ohrid 1970; Zbornik na trudovite, tom I, Skopje 1973; pp. 115—119. (2.5; 2.7)
- [Cve6] Die Zahl der Wege eines Grafen. Glasnik Mat., Ser. III., 5 (25) (1970), 205—210. (7.5)
- [Cve7] New characterizations of the cubic lattice graph. Publ. Inst. Math. (Beograd) 10 (24) (1970), 195—198. (3.3; 6.1; 6.4)
- [Cve8] The generating function for variations with restrictions and paths of the graph and self-complementary graphs. Univ. Beograd Publ. Elektrotehn. Fak., Ser. Mat. Fiz., No. 320—No. 328 (1970), 27—34. (1.8; 3.3; 7.5)
- [Cve9] Graphs and their spectra (Grafovi i njihovi spektri) (Thesis). Univ. Beograd Publ. Elektrotehn. Fak., Ser. Mat. Fiz., No. 354—No. 356 (1971), 1—50. (1.8; 2.2; 2.4; 2.5; 2.6; 3.2; 3.3; 3.6; 6.1; 6.3; 6.6; 7.4; 7.5; 7.8; 8.3)
- [Cve10] The spectral method for determining the number of trees. Publ. Inst. Math. (Beograd) 11 (25) (1971), 135—141. (7.5; 7.8)
- [Cve11] Chromatic number and the spectrum of a graph. Publ. Inst. Math. (Beograd) 14 (28) (1972), 25—38. (3.2; 3.6; A)
- [Cve12] Inequalities obtained on the basis of the spectrum of the graph. Studia Sci. Math. Hung. 8 (1973), 433—436. (3.2; 3.6)
- [Cve13] Spectrum of the total graph of a graph. Publ. Inst. Math. (Beograd) 16 (30) (1973), 49—52. (2.4; 7.8)
- [Cve14] On a graph theory problem of M. Koman. Časopis Pěst. Mat. 98 (1973), 233—236. (7.5)
- [Cve15] The determinant concept defined by means of graph theory. Mat. Vesnik 12 (27) (1975), 333—336. (Dutch translation: Definite en berekening van determinanten met behulp van grafen, Nieuw Tijdschrift voor Wiskunde 63 (1976), 209—215.)
- [Cve16] Cubic integral graphs. Univ. Beograd Publ. Elektrotehn. Fak., Ser. Mat. Fiz., No. 498—No. 541 (1975), 107—113. (6.6; 7.1; 9.4)
- [Cve17] Spectra of graphs formed by some unary operations. Publ. Inst. Math. (Beograd) 19 (33) (1975), 37—41. (2.4)
- [Cve18] The main part of the spectrum, divisors and switching of graphs. Publ. Inst. Math. (Beograd) 23 (37) (1978), 31—38. (4.8)
- [CvG1] (with I. GUTMAN), The algebraic multiplicity of the number zero in the spectrum of a bipartite graph. Mat. Vesnik 9 (24) (1972), 141—150. (8.1; 8.5)

- [CvG2] (with I. GUTMAN), Kekulé structures and topology, II. Cata-condensed systems. *Croat. Chem. Acta* **46** (1974), 15–23. (8.3)
- [CvG3] (with I. GUTMAN), On spectral structure of graphs having the maximal eigenvalue not greater than two. *Publ. Inst. Math. (Beograd)* **18** (32) (1975), 39–45. (2.7; 6.1; 7.1)
- [CvG4] (with I. GUTMAN), Note on branching. *Croat. Chem. Acta* **49** (1977), 115–121. (1.8)
- [CvGT1] (with I. GUTMAN and N. TRINAJSTIĆ), Graph theory and molecular orbitals, II. *Croat. Chem. Acta* **44** (1972), 365–374. (8.1; 8.2)
- [CvGT2] (with I. GUTMAN and N. TRINAJSTIĆ), Kekulé structures and topology. *Chem. Phys. Letters* **16** (1972), 614–616. (8.2)
- [CvGT3] (with I. GUTMAN and N. TRINAJSTIĆ), Conjugated molecules having integral graph spectra. *Chem. Phys. Letters* **29** (1974), 65–68. (2.7; 9.4)
- [CvGT4] (with I. GUTMAN and N. TRINAJSTIĆ), Graph theory and molecular orbitals, VII. The role of resonance structures. *J. Chem. Phys.* **61** (1974), 2700–2706. (8.2; 8.5)
- [CvGT5] (with I. GUTMAN and N. TRINAJSTIĆ), Graph theory and molecular orbitals, IX. On the stability of cata-condensed hydrocarbons. *Theoret. Chim. Acta* **34** (1974), 129–136. (8.1)
- [CvGT6] (with I. GUTMAN and N. TRINAJSTIĆ), Graphical studies on the relations between the structure and reactivity of conjugated systems: The role of non-bonding molecular orbitals. *J. Mol. Struct.* **28** (1975), 289–303. (8.1)
- [CvLi] (with J. H. VAN LINT), An elementary proof of Lloyd's theorem. *Proc. Kon. Nederl. Acad. Wetensch., Ser. A*, **80** (1) (1977), 6–10. (4.8)
- [CvL1] (with R. P. LUČIĆ), A new generalization of the concept of the p -sum of graphs. *Univ. Beograd Publ. Elektrotehn. Fak., Ser. Mat. Fiz.*, No. 302–No. 319 (1970), 67–71. (2.5)
- [CvL2] (with R. P. LUČIĆ), Über die Zerlegung eines Graphen in ein Produkt von Graphen. XVIII. *Int. Wiss. Koll. TH Ilmenau 1973*, Reihe A2, 57–58. (7.8)
- * [CvMi] (with M. MILIĆ), *Teorija grafova i njene primene* (Serbo-Croatian). Univerzitet u Beogradu, Beograd 1971.
- [CvS1] (with S. K. SIMIĆ), On enumeration of certain type of sequences. *Univ. Beograd Publ. Elektrotehn. Fak., Ser. Mat. Fiz.*, No. 412–No. 460 (1973), 159–164. (1.8; 7.5)
- [CvS2] (with S. K. SIMIĆ), Graph equations for line graphs and total graphs. *Discrete Math.* **13** (1975), 315–320. (7.8)
- See also* [BuČCS], [BuCS], [BuCv], [GuCv], [KrC1], [KrC2]

DAMERELL, R. M.

- [Dam1] On Moore graphs. *Proc. Cambridge Phil. Soc.* **74** (1973), 227–236. (6.2)
- [Dam2] Orthogonal transformations of distance-regular graphs. A lecture given at the Conference on Finite Geometries and Designs, Brighton 1975.

DELSARTE, P.

- [Del1] An algebraic approach to the association schemes of coding theory. *Philips Res. Repts. Suppl.* **10** (1973). (3.6; 4.8)
- [Del2] Association schemes in certain lattices. *MBLE Res. Lab., Report 241*, Brussels (1974).
- [Del3] Association schemes and t -designs in regular semilattices. *J. Comb. Theory (A)* **20** (1976), 230–243.
- [Del4] The association schemes of coding theory. In: *Combinatorics* (ed. M. HALL, Jr., J. H. VAN LINT), Part 1, *Math. Centre Tracts* **55**, Amsterdam 1974, pp. 139–157. (6.4)
- [DeGS1] (with J. M. GOETHALS and J. J. SEIDEL), Orthogonal matrices with zero diagonal, II. *Canad. J. Math.* **23** (1971), 816–832.
- [DeGS2] (with J. M. GOETHALS and J. J. SEIDEL), Spherical codes and designs. *Geometriae Dedicata* **6** (1977), 363–388.

DEMBOWSKI, P.

* [Demb] *Finite Geometries*. Springer-Verlag, Berlin—Heidelberg—New York 1968. (6.4)

DEO, N.

* [Deo] *Graph Theory with Applications to Engineering and Computer Science*. Prentice-Hall, Englewood Cliffs, N. J., 1974. (0)

DESOER, C. A.

[Deso] The optimum formula for the gain of a flow-graph or a simple derivation of Coates' formula. *Proc. IRE* 48 (1960), 883—889. (1.4)

DEWAR, M. S. J.

[DeLo] (with H. C. LONGUET-HIGGINS), The correspondence between the resonance and molecular orbital theories. *Proc. Roy. Soc. (London) A* 214 (1952), 482—493. (8.2; 8.5)

DJOKOVIĆ, D. Ž.

[Djok] Isomorphism problem for a special class of graphs. *Acta Math. Acad. Sci. Hung.* 21 (1970), 267—270. (5.1; 6.1; 7.8)

DONATH, W. E.

[DoHo] (with A. J. HOFFMAN), Lower bounds for the partitioning of graphs. *IBM J. Res. Develop.* 17 (1973), 420—425. (3.6)

DOOB, M.

[Doo1] On characterizing a line graph by the spectrum of its adjacency matrix. Ph. D. thesis, The City University of New York, 1969. (6.6)

[Doo2] A geometrical interpretation of the least eigenvalue of a line graph. In: *Proc. Second Conference on Comb. Math. and Appl.*, Chapel Hill, N. C., 1970, pp. 126—135. (3.5; 6.3; 6.6)

[Doo3] Graphs with a small number of distinct eigenvalues. *Ann. New York Acad. Sci.* 175 (1970), No. 1, 104—110. (3.5; 6.2; 6.6)

[Doo4] On characterizing certain graphs with four eigenvalues by their spectra. *Linear Algebra and Appl.* 3 (1970), 461—482. (6.3)

[Doo5] On the spectral characterization of the line graph of a BIBD. In: *Proc. Second Louisiana Conference on Combinatorics, Graph Theory and Computing*, 1970, pp. 225—234.

[Doo6] On the spectral characterization of the line graph of a BIBD, II. In: *Proc. Manitoba Conference on Numerical Mathematics*, University of Manitoba 1971; pp. 117—126. (6.1)

[Doo7] On graph products and association schemes. *Utilitas Math.* 1 (1972), 291—302. (6.1)

[Doo8] An interrelation between line graphs, eigenvalues, and matroids. *J. Comb. Theory (B)* 15 (1973), 40—50. (6.3; 6.6)

[Doo9] A spectral characterization of the line graph of a BIBD with $\lambda = 1$. *Linear Algebra and Appl.* 12 (1975), 11—20. (6.3)

[Doo10] Eigenvalues of a graph and its imbeddings. *J. Comb. Theory (B)* 17 (1974), 244—248 (6.1; 9.1)

[Doo11] A note on prime graphs. *Utilitas Math.* 9 (1976), 297—300. (7.5)

[Doo12] On imbedding a graph in an isospectral family. In: *Proc. 2nd Manitoba Conference Numer. Math.*, Winnipeg, Man., 1972 (1973), pp. 137—142.

[Doo13] A note on eigenvalues of a line graph. In: *Proc. Conf. on Algebraic Aspects of Combinatorics*, Toronto 1975, *Utilitas Math.*, Winnipeg, Man., 1975, pp. 209—211.

[Doo14] Some asymptotic spectral properties of a graph. In: *Proc. 3rd Manitoba Conference Numer. Math.*, *Utilitas Math.*, Winnipeg, Man., 1974, p. 160.

DOWLING, T. A., *see* [BoDo]

DUBSKÝ, J., *see* [HoDKP], [HoDKT], [HoDT]

DULMAGE, A. L.

[DuMe] (with N. S. MENDELSON), *Graphs and matrices*. In: *Graph Theory and Theoretical Physics* (ed. F. HARARY), Academic Press, London—New York 1967, pp. 167—227. (0.3; 3.1)

EDELBERG, M.

- [EdGG] (with M. R. GAREY and R. L. GRAHAM), On the distance matrix of a tree. *Discrete Math.* **14** (1976), 23–39. (6.1; 9.2; A)

ELLZEY, JR., M. L., *see* [HeEl]

ELSPAS, B.

- [ElTu] (with J. TURNER), Graphs with circulant adjacency matrices. *J. Comb. Theory* **9** (1970), 297–307. (5.5; 6.2; 7.8)

ERDÖS, P.

- [ErSa] (with H. SACHS), Reguläre Graphen gegebener Taillenweite mit minimaler Knotenzahl. *Wiss. Z. Univ. Halle* **12** (1963), 251–257. (7.1)

FABIAN, J.

- [FaHa] (with H. HARTMANN), π -electronic structure of polymethines. *J. Mol. Struct.* **27** (1975), 67–78.

FARZAN, M.

- [Far1] Matrix Methods in Graph Theory. University of Wales thesis, Swansea 1974. (2.5)
 [Far2] Automorphisms of double covers of a graph. In: *Problèmes Combinatoires et Théorie des Graphes*, Coll. Int. C. N. R. S., No. 260, Orsay 1976. C. N. R. S. Publ. 1978 (ed. J.-C. BERMOND, J.-C. FOURNIER, M. LAS VERGNAS, D. SOTTEAU), pp. 137–138. (4.2)
 [FaW1] (with D. A. WALLER), Local joins and lexicographic products of graphs. *Bull. Iranian Math. Soc.* **1** (2) (1974), 1–17. (2.5)
 [FaW2] (with D. A. WALLER), Kronecker products and local joins of graphs. *Canad. J. Math.* **29** (1977), 255–269. (2.5)

FEICK, R., *see* [BoFS]

FEIT, W.

- [FeHi] (with G. HIGMAN), The non-existence of certain generalized polygons. *J. Algebra* **1** (1964), 114–131. (7.1)

FIEDLER, M.

- [Fie1] Algebraic connectivity of graphs. *Czechoslovak. Math. J.* **23** (98) (1973), 298–305. (1.2; 9.3)
 [Fie2] Algebraische Zusammenhangszahl der Graphen und ihre numerische Bedeutung. In: *Numerische Methoden bei graphentheoretischen und kombinatorischen Problemen* (ed. L. COLLATZ, G. MEINARDUS, H. WERNER), Birkhäuser, Basel–Stuttgart 1975, pp. 69–85. (9.3)
 [Fie3] An algebraic approach to connectivity of graphs. In: *Recent Advances in Graph Theory* (ed. M. FIEDLER), Academia Praha 1975, pp. 193–196. (3.6)
 [Fie4] A property of eigenvectors of non-negative symmetric matrices and its application to graph theory. *Czechoslovak. Math. J.* **25** (100) (1975), 619–633.
 [Fie5] Eigenvectors of acyclic matrices. *Czechoslovak. Math. J.* **25** (100) (1975), 607–618.
 [FiSe] (with J. SEDLÁČEK), O w -basích orientovaných grafů (Czech). *Časopis Pěst. Mat.* **88** (1958), 214–225. (1.5; 1.9)

FINCK, H.-J.

- [FinC] Vollständiges Produkt, chromatische Zahl und charakteristisches Polynom regulärer Graphen, II. *Wiss. Z. TH Ilmenau* **11** (1965), 81–87. (3.3; 3.6; 6.2)
 [FiGr] (with G. GROHMANN), Vollständiges Produkt, chromatische Zahl und charakteristisches Polynom regulärer Graphen, I. *Wiss. Z. TH Ilmenau* **11** (1965), 1–3. (2.2; 3.3; 7.8)
 [FiSa] (with H. SACHS), Über Beziehungen zwischen Struktur und Spektrum regulärer Graphen. *Wiss. Z. TH Ilmenau* **19** (1973), 83–99. (4.1; 4.7; 4.8)

FISHER, M.

- [Fish] On hearing the shape of a drum. *J. Comb. Theory* **1** (1966), 105–125. (6.1; 8.4)

FREEDMAN, H. D.

- [Free] On the impossibility of certain Moore graphs. *J. Comb. Theory (B)* **10** (1971), 245–252. (6.2)

FRIED, M.

- [FrSm] (with J. H. SMITH), Primitive groups, Moore graphs, and rational curves. *Mich. J. Math.* **19** (1972), 341—346.

FUJII, Y., *see* [YaFH]

GANTMACHER, F. R.

- * [Gant] $\frac{1}{2}$ Theory of Matrices I, II (2 vol.). Chelsea, New York 1960 (Translated from Russian). German edition: *Matrizenrechnung*, Teil I, II (2 vol.). Third ed., VEB Deutscher Verlag der Wissenschaften, Berlin 1970, 1971.
Second Russian edition: ГАНТМАХЕР, Ф. Р., Теория матриц. Изд. „Наука“, Москва 1966. (0; 0,3; 1.4; 2.4; 3.1)

GARDINER, A.

- [Gard] Antipodal covering of graphs. *J. Comb. Theory (B)* **16** (1974), 255—273. (4.2; 4.5)

GABEY, M. R., *see* [EdGG]

GENTRY, J. C., *see* [BrGe]

GEWIRTZ, A.

- [Gew1] Graphs with maximal even girth. Thesis, City University of New York, 1967. (7.1)

- [Gew2] Graphs with maximal even girth. *Canad. J. Math.* **21** (1969), 915—934. (7.1)

GIBBS, R. A.

- [Gib1] Self-Complementary Graphs: Their Structural Properties and Adjacency Matrices. Ph. D. thesis, Michigan State University, 1970.

- [Gib2] Self-complementary graphs. *J. Comb. Theory (B)* **16** (1974), 106—123. (6.6)

GODSIL, C. D.

- [Gods] Graphs, groups and polytopes. In: *Combinatorial Mathematics (Lecture Notes in Mathematics 686, ed. D. A. HOLTON, J. SEBERRY)*, Springer-Verlag, Berlin—Heidelberg—New York 1978, pp. 157—164. (5.2; 5.5)

- [GoM1] (with B. MCKAY), Products of graphs and their spectra. In: *Combinatorial Mathematics IV (Lecture Notes in Mathematics 560, ed. L. R. A. CASSE, W. D. WALLIS)*, Springer-Verlag, Berlin—Heidelberg—New York 1976, pp. 61—72. (2.5)

- [GoM2] (with B. MCKAY), Some computational results on the spectra of graphs. In: *Combinatorial Mathematics IV (Lecture Notes in Mathematics 560, ed. L. R. A. CASSE, W. D. WALLIS)*, Springer-Verlag, Berlin—Heidelberg—New York 1976, pp. 73—92. (5.2; 6.1)

GOETHALS, J. M.

- [GoS1] (with J. J. SEIDEL), Orthogonal matrices with zero diagonal. *Canad. J. Math.* **19** (1967), 1001—1010.

- [GoS2] (with J. J. SEIDEL), Quasisymmetric block designs. In: *Combinatorial Structures and Their Applications* (ed. R. GUY, H. HANANI, N. SAUER, J. SCHÖNHEIM). Gordon and Breach, Science Publishers, Inc., New York—London—Paris 1970, pp. 111—116.

- [GoS3] (with J. J. SEIDEL), Strongly regular graphs derived from combinatorial designs. *Canad. J. Math.* **22** (1970), 597—614.

- [GoS4] (with J. J. SEIDEL), The regular two-graph on 276 vertices. *Discrete Math.* **12** (1975), 143—158. (3.6)

See also [CaGSS], [DeGS1], [DeGS2]

GRAHAM, R. L.

- [GrHH] (with A. J. HOFFMAN and H. HOSoya), On the distance matrix of a directed graph. *J. Graph Theory* **1** (1977), 85—88. (9.2)

- [GrLo] (with L. LOVÁSZ), Distance matrices of trees. Stanford University, STAN-CS-75-497 (1975). (9.2)

- [GrP1] (with H. O. POLLAK), On the addressing problem for loop switching. *Bell System Tech. J.* **50** (1971), 2495—2519. (9.2)

- [GrP2] (with H. O. POLLAK), On embedding graphs in squashed cubes. In: *Graph Theory and Applications (Lecture Notes in Mathematics 303, ed. Y. ALAVI, D. R. LICK, A. T. WHITE)*, Springer-Verlag, Berlin—Heidelberg—New York 1972; pp. 99—110.

See also [EdGG] (9.2)

GRAOVAC, A.

- [GrGT1] (with I. GUTMAN and N. TRINAJSTIĆ), On the Coulson integral formula for total π -electron energy. *Chem. Phys. Letters* **35** (1975), 555–557. (8.1)
- [GrGT2] (with I. GUTMAN and N. TRINAJSTIĆ), A linear relationship between the total π -electron energy and the characteristic polynomial. *Chem. Phys. Letters* **37** (1976), 471–474. (8.1)
- [GrGTŽ] (with I. GUTMAN, N. TRINAJSTIĆ, and T. ŽIVKOVIĆ), Graph theory and molecular orbitals. Applications of Sachs theorem. *Theoret. Chim. Acta* **26** (1972), 67–78. (8.2)

GRIMMETT, G. R.

- [Grim] An upper bound for the number of spanning trees of a graph. *Discrete Math.* **16** (1976), 323–324. (7.7)

GROHMANN, G., see [FiGr]

GÜNTARD, Hs. H.

- [GüPr] (with H. PRIMAS), Zusammenhang von Graphentheorie und MO-Theorie von Molekeln mit Systemen konjugierter Bindungen. *Helv. Chim. Acta* **39** (1956), 1645–1653. (6.1; 8.1)

See also [WiKG]

GUTMAN, I.

- [Gut1] Teorija grafova i molekularne orbitale (Serbo-Croatian). Master thesis, University of Zagreb, 1972. (8.5)
- [Gut2] Bounds for total π -electron energy. *Chem. Phys. Letters* **24** (1974), 283–285. (8.1; 8.5)
- [Gut3] Estimating the π -electron energy of very large conjugated systems. *Naturwissenschaften* **61** (1974), 216–217.
- [Gut4] On the number of antibonding MO's in conjugated hydrocarbons. *Chem. Phys. Letters* **26** (1974), 85–88. (8.5)
- [Gut5] Some topological properties of benzenoid systems. *Croat. Chem. Acta* **46** (1974), 209–215. (8.5)
- [Gut6] An algorithm for the enumeration of bonding and antibonding MO's in conjugated hydrocarbons. *Chem. Phys. Letters* **37** (1976), 475–477. (8.5)
- [Gut7] Hückel molecular orbital energies for [O] paracyclophanes — a test for the validity of the perimeter rule. *Bull. Soc. Chim. Beograd* **41** (1976), 69–74.
- [Gut8] Generalizations of a recurrence relation for the characteristic polynomials of trees. *Publ. Inst. Math. (Beograd)* **21** (35) (1977), 75–80. (2.3; 6.1)
- [Gut9] Partial ordering of forests according to their characteristic polynomial. In: *Combinatorics* (Coll. Math. Soc. J. BOLYAI **18**, ed. A. HAJNAL and V. SÓs). North-Holland Publ. Co., Amsterdam—Oxford—New York 1978, Vol. I, pp. 429–436. (8.1)
- [Gut10] Investigation of topological properties of conjugated hydrocarbons. (Serbo-Croatian) Thesis, University of Zagreb 1973. (8.1)
- [Gut11] A class of approximate topological formulas for total π -electron energy. *J. Chem. Phys.* **66** (1977), 1652–1655. (8.1)
- [Gut12] Acyclic systems with extremal Hückel π -electron energy. *Theoret. Chim. Acta* **45** (1977), 79–87. (8.1)
- [GuCv] (with D. M. CVETKOVIĆ), The reconstruction problem for characteristic polynomials of graphs. *Univ. Beograd Publ. Elektrotehn. Fak., Ser. Mat. Fiz.*, No. 498—No. 541 (1975), 45–48. (9.5)
- [GuRT] (with M. RANDIĆ and N. TRINAJSTIĆ), Kekulé structures and topology, III. On inseparability of Kekulé structures. *Rev. Roumaine Chim.* **23** (1978), 383–395.
- [GuRTW] (with B. RUŠČIĆ, N. TRINAJSTIĆ, and C. F. WILCOX JR.), Graph theory and molecular orbitals, XII. Acyclic polyenes. *J. Chem. Phys.* **62** (1975), 3399–3405.
- [GuT1] (with N. TRINAJSTIĆ), Graph theory and molecular orbitals. Total π -electron energy of alternant hydrocarbons. *Chem. Phys. Letters* **17** (1972), 535–538. (8.1; 8.4)
- [GuT2] (with N. TRINAJSTIĆ), A graph-theoretical classification of conjugated hydrocarbons. *Naturwissenschaften* **60** (1973), 475.

- [GuT3] (with N. TRINAJSTIĆ), Graph theory and molecular orbitals, IV. Further applications of Sachs formula. *Croat. Chem. Acta* **45** (1973), 423–429.
- [GuT4] (with N. TRINAJSTIĆ), Graph theory and molecular orbitals. In: *Topics in current chemistry (Fortschritte der chemischen Forschung)* **42**. Springer-Verlag, Berlin–Heidelberg–New York 1973, pp. 49–93.
- [GuT5] (with N. TRINAJSTIĆ), Graph theory and molecular orbitals. The loop rule. *Chem. Phys. Letters* **20** (1973), 257–260. (8.4)
- [GuT6] (with N. TRINAJSTIĆ), Graph theory and molecular orbitals, VIII. Kekulé structures and permutations. *Croat. Chem. Acta* **45** (1973), 539–545. (8.2)
- [GuT7] (with N. TRINAJSTIĆ), Violation of the Dewar-Longuet-Higgins conjecture. *Z. Naturforsch.* **29a** (1974), 1238. (2.7)
- [GuT8] (with N. TRINAJSTIĆ), Graph spectral theory of conjugated molecules. *Croat. Chem. Acta* **47** (1975), 507–533.
- [GuT9] (with N. TRINAJSTIĆ), On the parity of Kekulé structures. *Croat. Chem. Acta* **47** (1975), 35–39.
- [GuT10] (with N. TRINAJSTIĆ), Graph theory and molecular orbitals, XV. The Hückel rule. *J. Chem. Phys.* **64** (1976), 4921–4925. (8.1)
- [GuT11] (with N. TRINAJSTIĆ), Graph theory and molecular orbitals, XVI. On π -electron charge distribution. *Croat. Chem. Acta* **48** (1976), 19–24.
- [GuTW] (with N. TRINAJSTIĆ and C. F. WILCOX, Jr.), Graph theory and molecular orbitals, X. The number of Kekulé structures and the thermodynamic stability of conjugated systems. *Tetrahedron* **31** (1975), 143–146.
- [GuTŽ] (with N. TRINAJSTIĆ and T. ŽIVKOVIĆ), Graph theory and molecular orbitals, VI. A discussion of non-alternant hydrocarbons. *Tetrahedron* **29** (1973), 3449–3454.
- See also [CvG1], [CvG2], [CvG3], [CvG4], [CvGT1], [CvGT2], [CvGT3], [CvGT4], [CvGT5], [CvGT6], [GrGT1], [GrGT2], [GrGTŽ], [HoHG], [WiGT]
- HAEMERS, W.
- [Haem] Partitioning and eigenvalues. Eindhoven University of Technology, Memorandum 1976-11; revised version: A generalization of the Higman-Sims technique. *Proc. Kon. Ned. Akad. Wet. A* **81** (4) (1978), 445–447. (0.3)
- HAKIMI, S. L., see [AmHa]
- HALL, G. G.
- [Ha, G] The bond orders of alternant hydrocarbon molecules. *Proc. Roy. Soc. (London)* **A 229** (1955), 251–259. (8.1)
- HALL, K. M.
- [Ha, K] r -dimension quadratic placement algorithm. *Management Sci.* **17** (1970), No. 3, 219–229. (3.6)
- HALL, L. H.
- * [Ha, L] *Group Theory and Symmetry in Chemistry*. McGraw-Hill, New York 1969. (5.2)
- HALL, M., JR.
- * [Ha, M] *Combinatorial Theory*. Blaisdell Publ. Comp., Waltham–Toronto–London 1967. (6.2; 7.1)
- HAMADA, N., see [YaFH]
- HARARY, F.
- [Har1] A graph theoretic method for the complete reduction of a matrix with a view toward finding its eigenvalues. *J. Math. Phys.* **38** (1959), 104–111. (2.2)
- [Har2] The determinant of the adjacency matrix of a graph. *SIAM Rev.* **4** (1962), 202–210. (1.4; 6.1)
- [Har3] Four difficult unsolved problems in graph theory. In: *Recent Advances in Graph Theory* (ed. M. FIEDLER), Academia Praha 1975, pp. 249–256. (9.4)
- * [Har4] *Graph Theory*. Addison-Wesley Publ. Comp., Reading, Mass.-Menlo Park, Cal.-London-Don Mills, Ontario 1969; German translation: *Graphentheorie*. R. Oldenbourg Verlag, München–Wien 1974; Japanese translation: Kyoritsu, Tokyo 1971; Russian translation: See [Xapa]. (0; 0.1)

- [HaKMR] (with C. KING, A. MOWSHOWITZ, and R. C. READ), Cospectral graphs and digraphs. *Bull. London Math. Soc.* **3** (1971), 321–328. (2.3; 2.6; 6.1; 6.6)
- [HaS1] (with A. J. SCHWENK), The spectral approach to determining the number of walks in a graph. *Pacific J. Math.* (to appear) (1.8; 3.6)
- [HaS2] (with A. J. SCHWENK), Which graphs have integral spectra? In: *Graphs and Combinatorics (Lecture Notes in Mathematics 406)*, ed. R. BARI, F. HARARY, Springer-Verlag, Berlin–Heidelberg–New York 1974, pp. 45–51. (9.4; 9.5)
- [HaTr] (with C. A. TRAUTH, JR.), Connectedness of product of two directed graphs. *SIAM J. Appl. Math.* **14** (1966), 250–254. (7.4)
- [HaWi] (with G. W. WILCOX), Boolean operations on graphs. *Math. Scand.* **20** (1967), 41–51. (2.5; 7.4)
- See also [BaHa]
- HARTMANN, H., see [FaHa]
- HAYNSWORTH E. V.
- [Hayn] Applications of a theorem on partitioned matrices. *J. Res. Nat. Bureau Stand.* **62 B** (1959), 73–78. (0.3; 4.5)
- HEILBRONNER, E.
- [Hei1] Das Kompositions-Prinzip: Eine anschauliche Methode zur elektronen-theoretischen Behandlung nicht oder niedrig symmetrischer Molekeln im Rahmen der MO-Theorie. *Helv. Chim. Acta* **36** (1953), 170–188. (1.4; 2.3; A)
- [Hei2] Die Eigenwerte von LCAO-MO's in homologen Reihen. *Helv. Chim. Acta* **37** (1954), 921–935. (1.4; 2.3; 5.2; 6.3; 8.1)
- [Hei3] Ein graphisches Verfahren zur Faktorisierung der Säkulardeterminante aromatischer Ringsysteme im Rahmen der LCAO-MO-Theorie. *Helv. Chim. Acta* **37** (1954), 913–921. (4.6; 5.2)
- [Hei4] Über einen graphentheoretischen Zusammenhang zwischen dem Hückelschen MO-Verfahren und dem Formalismus der Resonanztheorie. *Helv. Chim. Acta* **45** (1962), 1722–1725. (8.5)
- * [HeSt] (with P. A. STRAUB), Hückel molecular orbitals. Springer-Verlag, Berlin–Heidelberg–New York 1966. (8.1)
- HERNDON, W. C.
- [Her1] Isospectral molecules. *Tetrahedron Letters* (1974), No. 8, 671–674. (6.1)
- [Her2] The characteristic polynomial does not uniquely determine molecular topology. *J. Chem. Doc.* **14** (1974), 150–151. (6.1)
- [HeEl] (with M. L. ELLZEY, JR.), Isospectral graphs and molecules. *Tetrahedron* **31** (1975), 99–107. (6.1)
- HESS, B. A.
- [HeSc] (with L. J. SCHAAD), Hückel molecular orbital π -resonance energies. A new approach. *J. Amer. Chem. Soc.* **93** (1971), 305–310. (8.1)
- HESTENES, M. D.
- [Hest] On the use of graphs in group theory. In: *New Directions in the Theory of Graphs* (ed. F. HARARY), Academic Press, New York–London 1973, pp. 97–128. (7.2)
- [HeHi] (with D. G. HIGMAN), Rank 3 groups and strongly regular graphs. In: *Computers in Algebra and Number Theory; SIAM–AMS Proc. Vol. IV*. Providence 1971, pp. 141–159. (0.3; 6.5)
- HEYDEMANN, M. C.
- [Heyd] Spectral characterization of some graphs. *J. Comb. Theory (B)* **25** (1978), 307–312. (6.6)
- HIGMAN, D. G.
- [Hig1] Finite permutation groups of rank 3. *Math. Z.* **86** (1964), 145–156. (7.2)
- [Hig2] Intersection matrices for finite permutation groups. *J. Algebra* **6** (1967), 22–42. (7.2)
- [Hig3] Coherent configurations, I. *Rend. Sem. Mat. Univ. Padova* **44** (1970), 1–26. (7.2)
- [Hig4] A survey of some questions and results about rank 3 permutation groups. In: *Actes Congrès Intern. Math. 1970, Tome 1*, pp. 361–365. (6.5; 7.2)

- [Hig5] Characterization of rank 3 permutation groups by subdegrees, I. Arch. Math. **21** (1970), 151—156. (6.5)
- [Hig6] Characterization of rank 3 permutation groups by subdegrees, II. Arch. Math. **21** (1970), 353—361. (6.5)
- [Hig7] Partial geometries, generalized quadrangles, and strongly regular graphs. In: Atti Conv. Geom. Comb. e Appl., Perugia 1970 (1st. Mat., Univ. Perugia 1971), pp. 263—293. (7.2)
- [HiSi] (with C. C. SIMS), A simple group of order 44,353,000. Math. Z. **105** (1968), 110—113. (7.2)

See also [FeHi], [HeHi]

HOCHMANN, P.

- [HoDKP] (with J. DUBSKÝ, J. KOUTECKÝ, and C. PÁRKÁNYI), Tables of quantum chemical data, VIII. Energy characteristics of some benzenoid hydrocarbons. Coll. Czech. Chem. Comm. **30** (1965), 3560—3565. (A)
- [HoDKT] (with J. DUBSKÝ, V. KVASNIČKA, and M. TITZ), Tables of quantum chemical data, X. Energy characteristics of some polyenic hydrocarbons. Coll. Czech. Chem. Comm. **31** (1966), 4172—4175. (A)
- [HoDT] (with J. DUBSKÝ and M. TITZ), Tables of quantum chemical data, XI. Energy characteristics of some non-alternant hydrocarbon molecules and ions. Coll. Czech. Chem. Comm. **32** (1967), 1260—1264. (A)
- [HoKZ] (with J. KOUTECKÝ and R. ZÁHRADNÍK), Tables of quantum chemical data, I. Molecular orbitals of some benzenoid hydrocarbons and benzo derivatives of fluoranthene. Coll. Czech. Chem. Comm. **27** (1962), 3053—3075. (A)

See also [TiH1], [TiH2], [TiH3]

HOFFMAN, A. J.

- [Hof1] On the exceptional case in a characterization of the arcs of a complete graph. IBM J. Res. Develop. **4** (1960), 487—496. (0.3; 6.1)
- [Hof2] On the uniqueness of the triangular association scheme. Ann. Math. Statist. **31** (1960), 492—497.
- [Hof3] On the polynomial of a graph. Amer. Math. Monthly **70** (1963), 30—36. (3.2; 3.3; 6.1; 6.6)
- [Hof4] On the line graph of the complete bipartite graph. Ann. Math. Statist. **35** (1964), 883—885. (6.3)
- [Hof5] On the line graph of a projective plane. Proc. Amer. Math. Soc. **16** (1965), 297—302. (6.3)
- [Hof6] Some recent results on spectral properties of graphs. In: Beiträge zur Graphentheorie (ed. H. SACHS, H.-J. VOSS, H. WALTHER). Int. Koll. Manebach, 1967. Leipzig 1968, pp. 75—80. (6.3; 9.1)
- [Hof7] The change in the least eigenvalue of the adjacency matrix of a graph under imbedding. SIAM J. Appl. Math. **17** (1969), 664—671. (6.1; 9.1)
- [Hof8] The eigenvalues of the adjacency matrix of a graph. Research note N. C. 689, Thomas J. Watson Research Center, Yorktown Heights, N.Y. 1967.
- [Hof9] The eigenvalues of the adjacency matrix of a graph. In: Combinatorial Mathematics and its Applications (ed. R. C. BOSE, T. A. DOWLING), The University of North Carolina Press, Chapel Hill 1969, pp. 578—584. (P; 1.9; 9.1)
- [Hof10] $-1 - \sqrt{2}$? In: Combinatorial Structures and Their Applications (ed. R. GUY, H. HANANI, N. SAUER, J. SCHÖNHEIM), Gordon and Breach, Science Publishers, Inc., New York—London—Paris 1970, pp. 173—176. (9.1)
- [Hof11] Eigenvalues and partitionings of the edges of a graph. Linear Algebra and Appl. **5** (1972), 137—146. (2.1; 3.2; 3.6; 6.1)
- [Hof12] Graphs and eigenvalues. Third Southeastern Conference on Combinatorics, Graph Theory and Computing, 1972, Florida Atlantic University, Boca Raton, Florida.
- [Hof13] On limit points of spectral radii of non-negative symmetric integral matrices. In: Graph Theory and Applications (Lecture Notes in Mathematics 303, ed. Y. ALAVI, D. R. LICK, A. T. WHITE), Springer-Verlag, Berlin—Heidelberg—New York 1972, pp. 165—172. (2.7; 3.6)

- [Hof14] On spectrally bounded graphs. In: *A Survey of Combinatorial Theory* (ed. J. N. SRIVASTAVA, F. HARARY, C. R. RAO, G.-C. ROTA, S. S. SHRIKHANDE), North-Holland Publ. Co., Amsterdam—London—New York 1973, pp. 277—283. (9.1)
- [Hof15] On vertices near a vertex of a graph. In: *Studies in Pure Mathematics, Papers Presented to Richard Rado* (ed. L. MIRSKI), London 1971, pp. 131—136. (3.6)
- [Hof16] On eigenvalues and colorings of graphs. In: *Graph Theory and Its Applications* (ed. B. Harris), Academic Press, New York—London 1970, pp. 79—91. (3.1; 3.6)
- [Hof17] Applications of Ramsey style theorems to eigenvalues of graphs. In: *Combinatorics* (ed. M. HALL, JR., J. H. VAN LINT), Part 2, Math. Centre Tracts, Amsterdam 1974, No. 56, pp. 43—57. (3.6; 9.1)
- [Hof18] On graphs whose least eigenvalue exceeds $-1 - \sqrt{2}$. *Linear Algebra and Appl.* 16 (1977), 153—165. (9.1)
- [Hof19] Eigenvalues of graphs. In: *Studies in Graph Theory, I, II* (ed. D. R. FULKERSON), M. A. A. 1975, pp. 225—245.
- [Hof20] On spectrally bounded signed graphs. In: *Trans. 21th Conference of Army Mathematics, U. S. Army Research Office, Durham (Abstract)*, pp. 1—5. (7.8)
- [Hof21] On eigenvalues of symmetric $(+1, -1)$ matrices. *Israel J. Math.* 17 (1974), 69—75. (7.8)
- [Hof22] On limit points of the least eigenvalue of a graph. *Ars Combinatoria* 3 (1977), 3—14.
- [Hof23] Spectral functions of graphs. In: *Proc. Int. Congr. Math. Vancouver 1974, Vol. 2, S. 1* (1975), pp. 461—463.
- [HoHo] (with L. HOWES), On eigenvalues and colorings of graphs, II. *Ann. New York Acad. Sci.* 175 (1970), No. 1, 238—242. (3.2; 3.6)
- [HoJa] (with B. A. JAMIL), On the line graph of the complete tripartite graph. *Linear und Multilinear Algebra* 5 (1977), 19—25.
- [HoJo] (with P. JOFFE), Nearest s -matrices of given rank and the Ramsey problem for eigenvalues of bipartite s -graphs. In *Problèmes Combinatoires et Théorie des Graphes, Coll. Int. C. N. R. S., No. 260, Orsay 1976. C. N. R. S. Publ. 1978* (ed. J.-C. BERMOND, J.-C. FOURNIER, M. LAS VERGNAS, D. SOTTEAU), pp. 237—240.
- [HoMc] (with M. H. McANDREW), The polynomial of a directed graph. *Proc. Amer. Math. Soc.* 16 (1965), 303—309. (3.1; 6.6)
- [HoOs] (with A. M. OSTROWSKI), On the least eigenvalue of a graph of large minimum valence containing a given graph (unpublished). (9.1)
- [HoR1] (with D. K. RAY-CHAUDHURI), On the line graph of a finite affine plane. *Canad. J. Math.* 17 (1965), 687—694. (6.3)
- [HoR2] (with D. K. RAY-CHAUDHURI), On the line graph of a symmetric balanced incomplete block design. *Trans. Amer. Math. Soc.* 116 (1965), No. 4, 238—252. (6.1; 6.3)
- [HoR3] (with D. K. RAY-CHAUDHURI), On a spectral characterization of regular line graphs (unpublished). (6.3; 6.6)
- [HoSi] (with R. R. SINGLETON), On Moore graphs with diameters 2 and 3. *IBM J. Res. Develop.* 4 (1960), 497—504. (6.2)
- [HoSm] (with J. H. SMITH), On the spectral radii of topologically equivalent graphs. In: *Recent Advances in Graph Theory* (ed. M. FIEDLER), Academia Praha 1975, pp. 273—281. (2.7)
- See also* [DoHo], [GrHH]
- HONEYBOURNE, C. L.
- [Hon1] Topological aspects of odd graphs and their relevance to radical spin densities. *J. C. S. Faraday II*, 71 (1975), 1343—1351.
- [Hon2] Graph theory and free radicals, Validation of a recent assertion and its relation to the pairing theorem. *J. C. S. Faraday II*, 72 (1976), 34—39.
- HOSOI, K., *see* [HoHG]
- HOSOYA, H.
- [Hos1] Topological index. A newly proposed quantity characterizing the topological nature of structural isomers of saturated hydrocarbons. *Bull. Chem. Soc. Japan* 44 (1971), 2332—2339. (A)

- [Hos2] Graphical enumeration of the coefficients of the secular polynomial of the Hückel molecular orbital. *Theoret. Chim. Acta* **25** (1972), 215—222. (1.4)
- [Hos3] Topological index and Fibonacci numbers with relation to chemistry. *Fibonacci Quart.* **11** (1973), No. 3, 255—266.
- [HoHG] (with K. Hosoi and I. Gutman), A topological index for the total π -electron energy. Proof of a generalized Hückel rule for an arbitrary network. *Theoret. Chim. Acta* **38** (1975), 37—47. (8.1)
- [HoMC] (with M. MURAKAMI and M. COTON), Distance polynomial and characterization of a graph. *Natur. Sci. Rept. Ochanumizu Univ.* **24** (1973), No. 1, 27—34. (9.2; A)
- See also [GrHH], [KaMH], [MiKH]
- HOWES, L.
- [How1] On subdominantly bounded graphs. Thesis, City Univ. of New York 1970. (9.1)
- [How2] On subdominantly bounded graphs — summary of results. In: *Recent Trends in Graph Theory* (Lecture Notes in Mathematics 186, ed. M. CAPOBIANCO, J. B. FRECHEN, M. KROLIK), Springer-Verlag, Berlin—Heidelberg—New York 1971, pp. 181—183. (9.1)
- See also [HoHo].
- HUBAUT, X. L.
- [Huba] Strongly regular graphs. *Discrete Math.* **13** (1975), 357—381. (7.2)
- HÜCKEL, E.
- [Hück] Quantentheoretische Beiträge zum Benzolproblem. *Z. Phys.* **70** (1931), 204—286. (8.1)
- HUTSCHENREUTHER, H.
- [Huts] Einfacher Beweis des Matrix-Gerüst-Satzes der Netzwerktheorie. *Wiss. Z. TH Ilmenau* **13** (1967), 403—404. (1.5)
- IMRICH, W.
- [Imri] Zehnpunktige kubische Graphen. *Aequationes Math.* **6** (1971), No. 1, 6—10. (A)
- ITO, T., see [BaIt]
- JACOBS, J. B., see [BeJa]
- JACOBS, J., see [CoJa]
- JAMES, L. O.
- [Jame] A combinatorial proof that the Moore (7, 2) graph is unique. *Utilitas Math.* **5** (1974), 79—84.
- JAMIL, B. A., see [HoJa]
- JOFFE, P., see [HoJo]
- JOHN, P. W. M.
- * [John] Statistical designs and analysis of experiments. Macmillan Comp., New York 1971.
- JOHNSON, D. E.
- [JoJo] (with J. R. JOHNSON), Comment on "General solution to the spanning tree enumeration problem in multigraph wheels". *IEEE Trans. Circuit Theory* **20** (1973), 454—455. (7.6)
- JOHNSON, J. R., see [JoJo]
- KAC, M.
- [Kac] Can one hear the shape of a drum? *Amer. Math. Monthly* **73** (1966), April, Part II, 1—23. (8.4)
- KASTELEYN, P. W.
- [Kas1] Dimer statistics and phase transitions. *J. Math. Phys.* **4** (1963), 287—293. (8.3)
- [Kas2] Graph theory and crystal physics. In: *Graph Theory and Theoretical Physics* (ed. F. HARARY), Academic Press, London—New York 1967, pp. 43—110. (1.8; 1.9; 8.3)

KAWASAKI, K.

- [KaMH] (with K. MIZUTANI and H. HOSOYA), Tables of non-adjacent numbers, characteristic polynomials and topological indices, II. Mono- and bicyclic graphs. Natur. Sci. Rept. Ochanumizu Univ. **22** (1971), No. 2, 181—214. (A)

See also [MiKH]

KELLER, J., *see* [WiKG]

KEL'MANS, A. K.

- [Kelm] Comparisons of graphs by their number of spanning trees. Discrete Math. **16** (1976), 241—261.

- [KeCh] (with V. M. CHELNOKOV), A certain polynomial of a graph and graphs with an extremal number of trees. J. Comb. Theory (B) **16** (1974), 197—214. Erratum, J. Comb. Theory (B) **24** (1978), 375. (1.5; 2.3; 7.6; 7.8)

See also КЕЛЬМАНС, А. К.

KERSCHBERG, L.

- [Kers] The characteristic polynomial of graph products. In: 7th Ann. Asilomar Conf. Circuits, Syst., Comput.; Pacific Grove 1973, Western Periodicals Comp., North Hollywood 1974, pp. 476—481. (2.5)

KING, C.

- [King] Characteristic polynomials of 7-node graphs. Sci. Rept., Univ. of West Indies CC6 (AFORS project 1026—66), Kingston 1967. (A)

See also [HaKMR]

KIRCHHOFF, G.

- [Kirch] Über die Auflösung der Gleichungen, auf welche man bei der Untersuchung der linearen Verteilung galvanischer Ströme geführt wird. Ann. Phys. Chem. **72** (1847), 497—508. (1.5)

KNOP, J. V.

- [KnTŽ] (with N. TRINAJSTIĆ and T. ŽIVKOVIĆ), A graphical study of positional isomers containing bivalent sulphur. Coll. Czech. Chem. Comm. **39** (1974), 2431—2448.

KÖNIG, D.

- [Kön1] Über Graphen und ihre Anwendungen auf Determinantentheorie und Mengenlehre. Math. Ann. **77** (1916), 453—465. (1.4)

- * [Kön2] Theorie der endlichen und unendlichen Graphen. Akadem. Verlagsges., Leipzig 1936. (1.4)

KOUTECKÝ, J., *see* [HoDKP], [HoKZ], [ZaMK1], [ZaMK2]

KRAUS, L. L.

- [KrC1] (with D. M. CVETKOVIĆ), Evaluation of a lower bound for the chromatic number of the complete product of graphs. Univ. Beograd Publ. Elektrotehn. Fak., Ser. Mat. Fiz., No. 357—No. 380 (1971), 63—68. (3.3)

- [KrC2] (with D. M. CVETKOVIĆ), Tables of simple eigenvalues of some graphs whose automorphism group has two orbits. Univ. Beograd Publ. Elektrotehn. Fak., Ser. Mat. Fiz., No. 381—No. 409 (1972), 89—95. (5.1; A)

KREWERAS, G.

- [Krew] Complexité et circuits eulériens dans les sommes tensorielles de graphes. J. Comb. Theory (B) **24** (1978), 202—212. (7.8)

KRISHNAMOORTHY, V.

- [KrP1] (with K. R. PARTHASARATHY), A note on non-isomorphic cospectral digraphs. J. Comb. Theory (B) **17** (1974), 39—40. (6.1)

- [KrP2] (with K. R. PARTHASARATHY), Cospectral graphs and digraphs with given automorphism group. J. Comb. Theory (B) **19** (1975), 204—213. (5.5; 6.1)

KUHN, W. W.

- [Kuhn] Graph isomorphism using vertex adjacency matrix. In: Proc. 25th summer meeting of Can. Math. Congress, Lakehead Univ., Thunder Bay, Ont., 1971, pp. 471—476. (1.8)

KUICH, W.

- [KuSa] (with N. SAUER), On the existence of certain minimal regular n -systems with given girth. In: *Proof Techniques in Graph Theory* (ed. F. HARARY, Academic Press. New York—London 1969, pp. 93—101.

KVASNIČKA, V., *see* [HoDKT]

LASKAR, R.

- [Las1] A characterization of cubic lattice graphs. *J. Comb. Theory* **3** (1967), 386—401. (6.4)
 [Las2] Eigenvalues of the adjacency matrix of the cubic lattice graph. *Pacific J. Math.* **29** (1969), 623—629. (6.4)

See also [BoLa]

LEHMER, D. H.

- [Lehm] Permutations with strongly restricted displacements. In: *Combinatorial Theory and Its Applications, II.* (ed. P. ERDŐS, A. RÉNYI, V. T. SÓS), Bolyai János Mat. Társulat, Budapest/North-Holland, Publ. Co., Amsterdam—London 1970, pp. 755—770. (7.5)

LEMMENS, P. W. H.

- [LeS1] (with J. J. SEIDEL), Equi-isoclinic subspaces of euclidean spaces. *Indag. Math.* **35** (1973), No. 2, 98—107.
 [LeS2] (with J. J. SEIDEL), Equiangular lines. *J. Algebra* **24** (1973), 494—512. (7.3)

LENSTRA, H. W.

- [Lens] Two theorems on perfect codes. *Discrete Math.* **3** (1972), 125—132. (4.8)

LICK, D. R.

- [Lick] A class of point partition numbers. In: *Recent Trends in Graph Theory* (Lecture Notes in Mathematics 186, ed. M. CAPOBIANCO, J. B. FRECHEN, M. KROLIK), Springer-Verlag, Berlin—Heidelberg—New York 1971, pp. 184—190. (3.2)
 [LiWh] (with A. T. WHITE), k -degenerate graphs. *Canad. J. Math.* **22** (1970), 1082—1096. (3.2)

LINT, J. H. VAN

- * [Lint] *Coding Theory* (Lecture Notes in Mathematics 201), Springer-Verlag, Berlin—Heidelberg—New York 1971. (4.8)
 [LiSe] (with J. J. SEIDEL), Equilateral point sets in elliptic geometry. *Proc. Nederl. Acad. Wetensch., Ser. A*, **69** (1966), 335—348. (1.2; 6.1; 6.5; 7.3; A)
See also [BeLS], [CaLi], [CvLi]

LITTLE, C. H. C.

- [Lit1] The parity of the number of 1-factors of a graph. *Discrete Math.* **2** (1972), 179—181. (7.8)
 [Lit2] Kasteleyn's theorem and arbitrary graphs. *Canad. J. Math.* **25** (1973), 758—764. (8.3)

LLOYD, S. P.

- [Lloy] Binary block coding. *Bell System Tech. J.* **36** (1957), 517—535. (4.8)

LONGUET-HIGGINS, H. C.

- [Long] Resonance structures and MO in unsaturated hydrocarbons. *J. Chem. Phys.* **18** (1950), 265—274. (8.1; 8.2)

See also [CoLo], [DeLo]

LORENS, C. S.

- * [Lore] *Flowgraphs*. McGraw-Hill, New York 1964. (1.4)

LOSEY, N. E., *see* [BeLo]

LOVÁSZ, L.

- [Lová] Spectra of graphs with transitive groups. *Periodica Math. Hung.* **6** (2) (1975), 191—195. (5.1; 5.5)
 [LoPe] (with J. PELIKÁN), On the eigenvalues of trees. *Periodica Math. Hung.* **3** (1—2), (1973), 175—182. (1.4; 2.7; 3.6)

See also [GrLo]

LUČIĆ, R. P., *see* [CvL1], [CvL2]

MAECHTER, R. T., *see* [StMa]

MALLION, R. B.

[Mal1] Some graph-theoretical aspects of simple ring current calculations on conjugated systems. *Proc. Roy. Soc. (London) A* **341** (1975), 429—449.

[Mal2] On the number of spanning trees in a molecular graph. *Chem. Phys. Letters* **36** (1975), 170—174. (1.5)

[MaST1] (with A. J. SCHWENK and N. TRINAJSTIĆ), A graphical study of heteroconjugated molecules. *Croat. Chem. Acta* **46** (1974), 171—182.

[MaST2] (with A. J. SCHWENK and N. TRINAJSTIĆ), On the characteristic polynomial of a rooted graph. In: *Recent Advances in Graph Theory* (ed. M. FIEDLER), Academia Praha 1975, pp. 345—350.

[MaTS] (with N. TRINAJSTIĆ and A. J. SCHWENK), Graph theory in chemistry — generalization of Sachs' formula. *Z. Naturforsch.* **29a** (1974), 1481—1484.

MALLOWS, C. D.

[MaSl] (with N. J. SLOANE), Two-graphs, switching classes and Euler graphs are equal in number. *SIAM J. Appl. Math.* **28** (1975), 876—880. (7.3)

MARCUS, M.

* [MaMi] (with H. MINC), *A Survey of Matrix Theory and Matrix Inequalities*. Allyn and Bacon, Inc., Boston 1964. (0; 0.3; 2.1; 2.4; 2.5; 3.2; 3.5)

MARCUS, R. A.

[Marc] Additivity of heats of combustion, LCAO resonance energies and bond orders of conformal sets of conjugated compounds. *J. Chem. Phys.* **43** (1965), 2643—2654.

MARIMONT, R. B.

[Mari] System connectivity and matrix properties. *Bull. Math. Biophys.* **31** (1969), 255—274. (3.2)

MARSHALL, C.

* [Mars] *Applied Graph Theory*. Interscience, John Wiley & Sons, New York—London—Sydney—Toronto 1971.

MASON, S. J.

[Mas1] Feedback theory — some properties of signal flow graphs. *Proc. IRE* **41** (1953), 1144—1156. (1.4)

[Mas2] Feedback theory — further properties of signal flow graphs. *Proc. IRE* **44** (1956), 920—926. (1.4)

MASUYAMA, M.

[Masu] A test for graph isomorphism. *Repts. Statist. Appl. Res. Union Jap. Sci. Eng.* **20** (1973), No. 2, 41—64.

MAYEDA, W.

* [Maye] *Graph Theory*. Interscience, John Wiley & Sons, Inc., New York—London—Sydney—Toronto 1972. (0)

MCANDREW, M. H.

[McAn] On the product of directed graphs. *Proc. Amer. Math. Soc.* **14** (1963), 600—606. (7.4)
See also [HoMc]

MCCLELLAND, B. J.

[McC1] Properties of the latent roots of a matrix: The estimation of π -electron energies. *J. Chem. Phys.* **54** (1971), 640—643. (8.1)

[McC2] Graphical method for factorizing secular determinants of Hückel molecular orbital theory. *J.C.S. Faraday II* **70** (1974), 1453—1456. (4.6; 5.2)

McKAY, B.

[McKa] On the spectral characterization of trees. *Ars Combinatoria* **3** (1977), 219—232. (9.2)
See also [GoM1], [GoM2]

McWEENY, R.

* [McWS] (with B. T. SUTCLIFFE), *Methods of molecular quantum mechanics*. Academic Press, London—New York 1969. (8; 8.1; 8.5)

MENDELSON, N. S.

[Men1] Structure of Good graphs and related graphs (unpublished).

- [Men2] Directed graphs with the unique path property. In: Combinatorial Theory and Its Applications, II (ed. P. ERDŐS, A. RÉNYI, V. T. SÓS), Bolyai János Mat. Társulat, Budapest/North-Holland Publ. Co., Amsterdam—London 1970, pp. 783—799.
- See also* [DuMe]
- MEREDITH, G. H. J., *see* [BiMe]
- MESSNER, D. M., *see* [BoMe]
- MEYER, J. F.
- [Meye] Algebraic isomorphism invariants for graphs of automata. In: Graph Theory and Computing (ed. R. C. READ), Academic Press, New York—London 1972, pp. 123—152. (6.1)
- MICHL, J., *see* [ZaM1], [ZaM2], [ZaM3], [ZaMK1], [ZaMK2]
- MILIĆ, M.
- [Mili] Flow-graph evaluation of the characteristic polynomial of a matrix. IEEE Trans. Circuit Theory CT-11 (1964), 423—424. (1.4)
- See also* [CvMi]
- MILLER, D. J.
- [Mill] The categorical product of graphs. Canad. J. Math. 20 (1968), 1511—1521. (2.5; 7.4)
- MINC, H., *see* [MaMi]
- MITCHEM, J.
- [Mite] On extremal partitions of graphs. Thesis, Michigan 1970. (3.2)
- MIZUTANI, K.
- [MiKH] (with K. KAWASAKI and H. HOSoya), Tables of non-adjacent numbers, characteristic polynomials and topological indices, I. Tree graphs. Natur. Sci. Rept. Ochanumizu Univ. 22 (1971), No. 1, 39—58. (A)
- See also* [KaMH]
- MONTROL, E. W.
- [Mont] Lattice statistics. In: Applied Combinatorial Mathematics (ed. E. F. BECKENBACH), Interscience, John Wiley & Sons, New York—London—Sydney 1964, pp. 96—143. Russian translation: Статистика решеток. In: Прикладная комбинаторная математика. Изд. „Мир“, Москва 1968, pp. 9—60. (8.3)
- MOON, J. W.
- [Moo1] On the line graph of the complete bigraph. Ann. Math. Statist. 34 (1963), 664—667. (6.3)
- * [Moo2] Counting Labelled Trees. Canadian Mathematical Monographs No. 1, Canad. Math. Congress 1970. (1.5; 7.6)
- [MoPu] (with N. J. PULLMAN), On generalized tournament matrices. SIAM Review 12 (1970), 384—399.
- MORLEY, T. D., *see* [AnMo]
- MOSER, W. O. J.
- [MoAb] (with M. ABRAMSON), Enumeration of combinations with restricted differences and cospan. J. Comb. Theory 7 (1969), 162—170. (7.5)
- MOWSHOWITZ, A.
- [Mow1] Entropy and complexity of graphs. University of Michigan Techn. Rept., August 1967. (5.5)
- [Mow2] Entropy and complexity of graphs, III. Graphs with prescribed information content. Bull. Math. Biophys. 30 (1968), 387—414. (2.5; 5.5)
- [Mow3] The group of a graph whose adjacency matrix has all distinct eigenvalues. In: Proof Techniques in Graph Theory (ed. F. HARARY), Academic Press, New York—London 1969, pp. 109—110. (5.1)
- [Mow4] Graphs, groups and matrices. In: Proc. Canad. Math. Congr., 1971, pp. 509—522. (5.2; 5.5)
- [Mow5] The characteristic polynomial of a graph. J. Comb. Theory (B) 12 (1972), 177—193. (1.4; 2.7; 6.1; 6.6; A)

- [Mow6] The adjacency matrix and the group of a graph. In: *New Directions in the Theory of Graphs* (ed. F. HARARY), Academic Press, New York—London 1973, pp. 129—148. (5.2; A)
- See also* [HaKMR]
- MUIR, T.
- * [Mui1] *History of the Theory of Determinants*, IV. London 1923. (7.6)
- * [Mui2] *The Theory of Determinants in the Historical Order of Development*, I. Dover Publications Inc., New York 1960. (1.4)
- MURAKAMI, M., *see* [HoMC]
- MURTY, U. S. R., *see* [BoMu]
- NASH-WILLIAMS, C. ST. J. A.
- [Nash] Unexplored and semiexplored territories in graph theory. In: *New Directions in the Theory of Graphs* (ed. F. HARARY), Academic Press, New York—London 1973, pp. 149—186. (P)
- NATHAN, A.
- [Nath] A proof of the topological rules of signal-flow-graph analysis. *Proc. IEEE* (London) 109C (1961), 83—85. (1.4)
- NOLTEMEIER, H.
- * [Nolt] *Graphentheorie mit Algorithmen und Anwendungen*. Walter de Gruyter, Berlin—New York 1976. (0)
- NORDHAUS, E. A.
- [Nord] A class of strongly regular graphs. In: *Proof Techniques in Graph Theory* (ed. F. HARARY), Academic Press, New York—London 1969, pp. 119—123.
- See also* [BeCN]
- NOSAL, E.
- [Nos1] *Eigenvalues of Graphs*. Master thesis, University of Calgary, 1970. (2.7; 3.2; 3.6; 7.7; 8.5; A)
- [Nos2] On the number of spanning trees of finite graphs. The University of Calgary, Research paper No. 95 (1970).
- NUFFELEN, C. VAN
- [Nuf1] On the rank of the incidence matrix of a graph. *Cahiers Centre Étud. Rech. Opér.* (Bruxelles) 15 (1973), 363—365. (3.6)
- [Nuf2] A bound for the chromatic number of a graph. *Amer. Math. Monthly* 83 (1976), 265—266. (3.2)
- OGASAWARA, M.
- [Ogas] A necessary condition for the existence of regular and symmetrical PBIB designs of T_m type. *Inst. Statist. mimeo series 418*, Chapel Hill 1965.
- ORE, O.
- * [Ore] *Theory of Graphs*. Amer. Math. Soc. Colloq. Publ. 38, Providence 1962. (8.2)
- OSTROWSKI, A. M., *see* [HOOs]
- PÁRKÁNYI, C., *see* [HoDKP], [ZaPá]
- PARSONS, T. D.
- [Pars] Ramsey graphs and block designs I. *Trans. Amer. Math. Soc.* 209 (1975), 33—44. (7.1)
- PARTHASARATHY, K. R., *see* [KrP1], [KrP2]
- PAULUS, A. J. L.
- [Paul] Conference matrices and graphs of order 26. Technische Hogeschool Eindhoven, T. H.-Report 73-WSK-06. (5.1; 6.1; 7.2)
- PAYNE, S. E.
- [Payn] On the non-existence of a class of configurations which are nearly generalized n -gons. *J. Comb. Theory (A)* 12 (1972), 268—282. (7.1)
- PELIKÁN, J., *see* [LoPe]

PERCUS, J. K.

* [Perc] Combinatorial Methods. Springer-Verlag, Berlin—Heidelberg—New York 1971. (8.3)

PETERSDORF, M.

[Pete] Über Zusammenhänge zwischen Automorphismengruppe, Eigenwerten und vor-
deren Teilern eines Graphen und deren Verwendung zur Interpretation und Lösung
gewisser Probleme der Analysis und Algebra. Dissertation TH Ilmenau 1969. (5.1)

[PeS1] (with H. SACHS), Über Spektrum, Automorphismengruppe und Teiler eines Gra-
phen. Wiss. Z. TH Ilmenau 15 (1969), 123—128. (0.3; 1.2; 4.1; 4.4; 4.5)

[PeS2] (with H. SACHS), Spektrum und Automorphismengruppe eines Graphen. In: Com-
binatorial Theory and Its Applications, III (ed. P. ERDŐS, A. RÉNYI, V. T. SÓS),
Bolyai János Mat. Társulat, Budapest/North-Holland Publ. Co., Amsterdam—
London 1970, pp. 891—907. (5.2)

POLLAK, H. O., *see* [GrP1], [GrP2]

PONSTEIN, J.

[Pons] Self-avoiding paths and the adjacency matrix of a graph. SIAM J. Appl. Math.
14 (1966), 600—609. (1.4; 1.9; 6.1)

POUZET, M.

[Pouz] Note sur le problème de Ulam. J. Comb. Theory (to appear). (9.5)

PRIMAS, H., *see* [GüPr]

PULLMAN, N. J., *see* [MoPu]

RAGHAVARAO, D.

* [Ragh] Construction and Combinatorial Problems in the Design of Experiments. John
Wiley & Sons, New York 1971. (6.4)

See also [ShRa]

RANDIĆ, M.

[RaTŽ] (with N. TRINAJSTIĆ and T. ŽIVKOVIĆ), On molecular graphs having identical
spectra. J. C. S. Faraday II, 72 (1976), 244—256. (6.1)

See also [GuRT], [ŽiTR]

RAY-CHAUDHURI, D. K.

[Ray1] Characterization of line graphs. J. Comb. Theory 3 (1967), 201—214. (6.3; 6.6)

[Ray2] On some connections between graph theory and experimental designs and some
recent existence results. In: Graph Theory and Its Applications (ed. B. HARRIS),
Academic Press, New York—London 1970, pp. 149—166. (7.1)

See also [HoR1], [HoR2], [HoR3]

READ, R. C.

[Rea1] On the number of self-complementary graphs and digraphs. J. London Math. Soc.
38 (1963), 99—104. (3.3)

[Rea2] Teaching graph theory to a computer. In: Recent Progress in Combinatorics (ed.
W. T. TUTTE), Academic Press, New York—London 1969, pp. 161—173.

See also [HaKMR]

REID, K. B.

[Reid] Connectivity in products of graphs. SIAM Rev. 18 (1970), 645—651. (7.4)

REINER, I., *see* [CuRe]

REMPEL, J.

[ReSc] (with K.-H. SCHWOLOW), Ein Verfahren zur Faktorisierung des charakteristischen
Polynoms eines Graphen. Wiss. Z. TH Ilmenau 23 (1977), Nr. 4, 25—39. (4.1; 4.6)

RINGEL, G.

[Ring] Selbstkomplementäre Graphen. Arch. Math. 14 (1963), 354—358. (3.3)

ROBERTS, F. S.

[RoBr] (with T. A. BROWN), Signed digraphs and the energy crisis. Amer. Math. Monthly
82 (1975), 577—594.

ROHLÍČKOVÁ, I.

[Rohl] Poznámka o počtu koster jednoho typu grafu (Czech). In: Matematika (Geo-
metrie a Teorie Grafů), University Karlova, Praha 1970, pp. 117—120. (7.6)

ROUVRAY, D. H.

- [Rou1] Les valeurs propres des molécules qui possèdent un graph biparti. C. R. Acad. Sci. Paris, Sér. C, 274 (1972), 1561—1563. (3.2)
 [Rou2] Les valeurs propres des molécules qui possèdent un graph triparti. C. R. Acad. Sci. Paris, Sér. C, 275 (1972), 657—659. (8.5)

RUEDENBERG, K.

- [Rued] Quantum mechanics of mobile electrons in conjugated bond systems, III. Topological matrix as a generatrix of bond orders. J. Chem. Phys. 34 (1961), 1884—1891. (8.5)

RUNGE, F.

- [Rung] Beiträge zur Theorie der Spektren von Graphen und Hypergraphen. Dissertation, TH Ilmenau 1976. (1.3; 1.6; 1.7; 1.9; 3.5; 9.5)
 [RuSa] (with H. SACHS), Berechnung der Anzahl der Gerüste von Graphen und Hypergraphen mittels deren Spektren. Mathematica Balkanica 4 (1974), 529—536. (1.9; 9.5)

RUŠČIĆ, B., see [GuRTW]

RUSHBROOKE, G. S., see [CoRu]

RUTHERFORD, D. E.

- [Ruth] Some continuant determinants arising in physics and chemistry. Proc. Roy. Soc. (Edinburgh) A 62 (1947), 229—236. (2.5; 8.1; 8.4)

RYSER, H. J.

- [Ryse] A generalization of the matrix equation $A^2 = J$. Linear Algebra and Appl. 3 (1970), 451—460.

SABIDUSSI, G.

- [Sabi] Graph multiplication. Math. Z. 72 (1960), 446—457. (2.5; 7.4)

SACHS, H.

- [Sac1] Über selbstkomplementäre Graphen. Publ. Math. Debrecen 9 (1962), 270—288. (2.2; 2.5; 3.3; 4.5; 5.1; 7.1)
 [Sac2] Über die Anzahlen von Bäumen, Wäldern und Kreisen gegebenen Typs in gegebenen Graphen. Habilitationsschrift Univ. Halle, Math.-Nat. Fak., 1963. (1.4)
 [Sac3] Beziehungen zwischen den in einem Graphen enthaltenen Kreisen und seinem charakteristischen Polynom. Publ. Math. Debrecen 11 (1964), 119—134. (1.4; 3.1; 3.2; 3.3; 7.8)
 [Sac4] Abzählung von Wäldern eines gegebenen Typs in regulären und biregulären Graphen. I. Publ. Math. Debrecen 11 (1964), 74—84. (3.3)
 [Sac5] Abzählung von Wäldern eines gegebenen Typs in regulären und biregulären Graphen, II. Publ. Math. Debrecen 12 (1965), 7—24. (7.8)
 [Sac6] Bemerkung zur Konstruktion zyklischer selbstkomplementärer gerichteter Graphen. Wiss. Z. TH Ilmenau 11 (1965), 161—162.
 [Sac7] Über Teiler, Faktoren und charakteristische Polynome von Graphen. Teil I. Wiss. Z. TH Ilmenau 12 (1966), 7—12. (2.5; 3.2; 4.1; 4.2)
 [Sac8] Über Teiler, Faktoren und charakteristische Polynome von Graphen, Teil II. Wiss. Z. TH Ilmenau 13 (1967), 405—412. (2.4; 3.5; 3.6; 8.1)
 *[Sac9] Einführung in die Theorie der endlichen Graphen, Teil I. Teubner Verlagsgesellschaft, Leipzig 1970. (0; 3.2; 3.3)
 [Sac10] Struktur und Spektrum von Graphen. Mitteil. Math. Ges. DDR, Heft 23 (1973), 119—132. (4.1)
 [Sac11] Ein Beitrag zur Theorie der Graphenspektren. XVIII. Int. Wiss. Koll. TH Ilmenau 1973, Reihe A2, 59—60.
 [Sac12] On the number of spanning trees. In: Proc. Fifth British Combinatorial Conference, Aberdeen 1975 (ed. C. ST. J. A. NASH-WILLIAMS and J. SHEEHAN), Winnipeg 1976, pp. 529—535. (1.9)
 [Sac13] Regular graphs with given girth and restricted circuits. J. London Math. Soc. 38 (1963), 423—429. (7.1)

- [Sac14] On a theorem connecting the factors of a regular graph with the eigenvectors of its line graph. In: *Combinatorics* (Coll. Math. Soc. J. Bolyai 18, ed. A. HAJNAL and V. Sós). North-Holland Publ. Co., Amsterdam—Oxford—New York 1978, Vol. II, pp. 947—957. (3.5)
- [Sac15] Über einige graphentheoretisch-kombinatorische Problemkreise. In: *Beiträge zur Graphentheorie und deren Anwendungen, vorgetragen auf dem Internat. Koll. Oberhof (DDR), April 1977*. Math. Ges. DDR / TH Ilmenau 1977, pp. 201—217. (1.2)
- [Sac16] Simultane Überlagerungen gegebener Graphen. *Publ. Math. Inst. Hung. Acad. Sci. (Budapest)* 9 (1964) (Ser. A), 415—427. (4.1; 4.2)
- [SaSt] (with M. STIEBITZ), Automorphism group and spectrum of a graph. (To appear in the P. Turán Memorial Volume, Hung. Acad. Sci.) (5.1)
- See also* [ErSa], [FiSa], [PeS1], [PeS2], [RuSa]
- SAMUEL, I.
- [Sam1] Résolution d'un déterminant seculaire par la méthode des polygones. *C. R. Acad. Sci. Paris* 229 (1949), 1236—1237. (1.4)
- [Sam2] Méthode des polygones, procédé d'étude graphique des déterminants. Applications aux problèmes de chimie théorique. Thesis, Univ. Paris 1958. (1.4)
- SAUER, N.
- [Saue] Extremaleigenschaften regulärer Graphen gegebener Tailenweite; I, II. *Sitzungsberichte Österr. Akad. Wiss., Math. Nat. Kl., Abt. II*, 176 (1967), 9—43.
- See also* [KuSa]
- SCHAAD, L. J., *see* [HeSc]
- SCHONLAND, D. S.
- * [Scho] *Molecular Symmetry. An Introduction to Group Theory and Its Uses in Chemistry*. D. van Nostrand Comp., Ltd., London 1965. (5.2)
- SCHWENK, A. J.
- [Schw1] Almost all trees are cospectral. In: *New Directions in the Theory of Graphs* (ed. F. HARARY), Academic Press, New York—London 1973, pp. 275—307. (5.4; 6.1)
- [Schw2] The spectrum of a graph. Doctoral Dissertation, University of Michigan 1973.
- [Schw3] Computing the characteristic polynomial of a graph. In: *Graphs and Combinatorics* (Lecture Notes in Mathematics 406, ed. R. BARI and F. HARARY), Springer-Verlag, Berlin—Heidelberg—New York 1974, pp. 153—172. (2.7; 4.4)
- [Schw4] On moments and coefficients in spectral graph theory. 1975 Winter Meeting A.M.S., Washington, D.C., (to appear).
- [Schw5] New derivations of spectral bounds for the chromatic number (abstract), *Graph Theory Newsletter* 5 (1975), No. 1, 77.
- [Schw6] Exactly thirteen connected cubic graphs have integral spectra. In: *Theory and Applications of Graphs* (Proc. Kalamazoo, 1976, (ed. Y. ALAVI, D. LICK), Springer-Verlag, Berlin—Heidelberg—New York 1978, pp. 516—533. (9.4)
- See also* [HaS1], [HaS2], [MaST1], [MaST2], [MaTS]
- SCHWOLOW, K.-H., *see* [ReSc]
- SEDLÁČEK, J.
- [Sed1] O incidenčních orientovaných grafů (Czech). *Časopis Pěst. Mat.* 84 (1959), 303—316 (1.9; 2.2; 3.1)
- [Sed2] O kostrách konečných grafů (Czech). *Časopis Pěst. Mat.* 91 (1966), 221—227. (7.8)
- [Sed3] Lucasova čísla v teorii grafů (Czech). In: *Matematika (Geometrie a Teorie Grafů)*, Universita Karlova, Praha 1970, pp. 111—115.
- See also* [FiSe]
- SEIDEL, J. J.
- [Sei1] Strongly regular graphs of L_2 -type and of triangular type. *Indag. Math.* 29 (1967), No. 2, 188—196. (6.1)
- [Sei2] Strongly regular graphs with $(-1, 1, 0)$ adjacency matrix having eigenvalue 3. *Linear Algebra and Appl.* 1 (1968), 281—298. (6.1; 6.5; 7.2; 7.8)

- [Sei3] Strongly regular graphs. In: *Recent Progress in Combinatorics* (ed. W. T. TUTTE), Academic Press, New York—London 1969; pp. 185—198. (6.1; 7.2; 7.8)
- [Sei4] A survey of two-graphs. In: *Teorie Combinatorie* (Coll. Int. Roma, 1973) t. I, Acc. Naz. Lincei, Roma 1976. (*Atti dei Convegni Lincei* 17 (1976)), pp. 481—511. (6.1; 7.2; 7.3; 7.8)
- [Sei5] On two-graphs and Shult's characterization of symplectic and orthogonal geometries over GF(2). Technische Hogeschool Eindhoven, TH-Report 73-WSK-02, 1—25.
- [Sei6] Graphs and two-graphs. In: *Fifth Southeastern Conf. Combinatorics, Graph Theory, Computing*. Boca Raton, Flo., 1974. Utilitas Math., Winnipeg 1974, pp. 125—143. (6.1; 6.6; 7.3)
- [Sei7] Metric problems in elliptic geometry. In: *The Geometry of Metric and Linear Spaces; Proc. Conf. metric geometry*, East Lansing 1974. (*Lecture Notes in Mathematics* 490, ed. L. M. KELLY), Springer-Verlag, Berlin—Heidelberg—New York 1975, pp. 32—43.
- [Sei8] Quasiregular two-distance sets. *Indagationes Math.* 31 (1969), No. 1, 64—70.
See also [BeLS], [BuČCS], [BuCS], [BuS1], [BuS2], [CaGSS], [CaSe], [DeGS1], [DeGS2], [GoS1], [GoS2], [GoS3], [GoS4], [LeS1], [LeS2], [LiSe]
- SEIDEN, E.
 [Seid] On a geometrical method of construction of partially balanced designs with two associate classes. *Ann. Math. Statist.* 32 (1961), 1177—1180. (6.3)
- SHANNON, C. E.
 [Shan] The theory and design of linear differential equation machines. OSRD Rept. 411, Sec. D-2 (Fire Control), U.S. National Defense Research Committee, 1942. (1.4)
- SHIMAMOTO, T., *see* [BoSh]
- SHRIKHANDE, S. S.
 [Shr1] On a characterization of the triangular association scheme. *Ann. Math. Statist.* 30 (1959), 39—47.
 [Shr2] The uniqueness of the I_2 association scheme. *Ann. Math. Statist.* 30 (1959), 781—798. (6.1; 6.3)
 [ShBh] (with BHAGAWANDAS), Duals of incomplete block designs. *J. Indian Stat. Assoc.* 3 (1965), 30—37. (3.4)
 [ShRa] (with D. RAGHAVARAO), Affine α -resolvable incomplete block designs. In: *Contributions to Statistics*, Calcutta 1964.
See also [BhSh]
- SHULT, E. E., *see* [CaGSS]
- SIMIĆ, S. K., *see* [CvS1], [CvS2]
- SIMS, C. C.
 [Sim1] Graphs and finite permutation groups. *Math. Z.* 95 (1967), 76—86. (6.5)
 [Sim2] Graphs and finite permutation groups, II. *Math. Z.* 103 (1968), 276—281. (6.5)
 [Sim3] On graphs with rank 3 automorphism group. (unpublished). (6.5)
See also [HiSi]
- SINGLETON, R.
 [Sin1] Regular graphs of even girth. Thesis, Princeton 1963. (7.1)
 [Sin2] On minimal graphs of maximal even girth. *J. Comb. Theory* 1 (1966), 306—332. (7.1)
See also [HoSi]
- SINGMASTER, D.
 [Sing1] The eigenvalues of the icosahedron and dodecahedron. *Notices Amer. Math. Soc.* 19 (1972), A-750.
 [Sing2] The eigenvalues of the n -dimensional octahedron. *Notices Amer. Math. Soc.* 19 (1972), A-684.
 [Sing3] The eigenvalues of the n -dimensional octahedron and of complete n -partite graphs. (unpublished).
- SINOGOWITZ, U., *see* [CoSi1], [CoSi2]

SKALA, H. L.

- [Skal] A variation of the friendship theorem. *SIAM J. Appl. Math.* **23** (1972), 214–220. (7.1)

SLOANE, N. J., *see* [MaSl]

SMITH, C. A. B., *see* [BrSST]

SMITH, D. H.

- [Sm,D1] On tetravalent graphs. *J. London Math. Soc.* **6** (1973), 659–662. (7.2)

- [Sm,D2] An improved version of Lloyd's theorem. *Discrete Math.* **15** (1976), 175–184. (4.8; 7.2)

See also [BiSm]

SMITH, J. H.

- [Sm,J] Some properties of the spectrum of a graph. In: *Combinatorial Structures and Their Applications* (ed. R. GUY, H. HANANI, N. SAUER, J. SCHÖNHEIM), Gordon and Breach, Science Publ., Inc., New York–London–Paris 1970, pp. 403–406. (2.7; 5.1; 6.2; 8.5)

See also [FrSm], [HoSm]

SMITH, M. S.

- [Sm,M] On rank 3 permutation groups. *J. Algebra* **33** (1975), 22–42.

ŠOKAROVSKI, R.

- [Šoka] A generalized direct product of graphs. *Publ. Inst. Math. (Beograd)* **22** (36) (1977), 267–269. (2.5)

SPIALTER, L.

- [Spia] The atom connectivity matrix characteristic polynomial (ACMCP) and its physico-geometric (topological) significance. *J. Chem. Doc.* **4** (1964), 269–274. (1.4)

STEWARTSON, K.

- [StMa] (with R. T. MAECHTER), On hearing the shape of a drum: further results. *Proc. Cambridge Phil. Soc.* **69** (1971), 353–363. (6.1)

STIEBITZ, M., *see* [SaSt]

STONE, A. H., *see* [BrSST]

STRAUB, P. A., *see* [HeSt]

STREET, A. P., *see* [WaSW]

STREITWIESER, A.

- * [StBr] (with J. I. BRAUMAN), Supplement tables of molecular orbital calculations. I, II. Pergamon Press, Oxford–London–Edinburgh–New York–Paris–Frankfurt 1965. (A)

See also [CoSt]

SUN, F. K., *see* [BoFS]

SUTCLIFFE, B. T., *see* [McWS]

TAYLOR, D. E.

- [Tay1] Some topics in the theory of finite groups. Ph. D. thesis, Univ. Oxford 1971. (7.3)

- [Tay2] Regular 2-graphs. *Proc. London Math. Soc.* **35** (1977), 257–274. (7.3)

TEH, H. H.

- [TeYa] (with H. D. YAP), Some construction problems of homogeneous graphs. *Bull. Math. Soc. Nanyang Univ.* (1964), 164–196. (2.5)

TITZ, M.

- [TiH1] (with P. HOCHMANN), Tables of quantum chemical data, IX. Energy characteristics of some benzenoid hydrocarbons. *Coll. Czech. Chem. Comm.* **31** (1966), 4168–4172. (A)

- [TiH2] (with P. HOCHMANN), Tables of quantum chemical data, XII. Energy characteristics of some benzoderivatives of acenaphthylene, fluorenone and azulene. *Coll. Czech. Chem. Comm.* **32** (1967), 2343–2345. (A)

- [TiH3] (with P. HOCHMANN), Tables of quantum chemical data, XIII. Energy characteristics of some benzenoderivatives of fulvene and heptafulvene. Coll. Chech. Chem. Comm. **32** (1967), 3028—3030. (A)
- See also* [HoDKT], [HoDT]
- TRAUTH, Jr., C. A., *see* [HaTr]
- TRENT, H. M.
- [Tren] A note on the enumeration and listing of all possible trees in a connected linear graph. Proc. Nat. Acad. Sci. USA **40** (1954), 1004—1007. (1.5)
- TRINAJSTIĆ, N., *see* [CvGT1], [CvGT2], [CvGT3], [CvGT4], [CvGT5], [CvGT6], [GrGT1], [GrGT2], [GrGTŽ], [GuT1], [GuT2], [GuT3], [GuT4], [GuT5], [GuT6], [GuT7], [GuT8], [GuT9], [GuT10], [GuT11], [GuRT], [GuRTW], [GuTW], [GuTŽ], [KnTŽ], [MaST1], [MaST2], [MaTS], [RaTŽ], [WiGT], [ŽiTR]
- TUERO, M.
- [Tuer] A contribution to the theory of cyclic graphs. Matrix Tensor Quart. **11** (1961), 74—80. (7.5)
- TURÁN, P.
- [Turá] Egy gráfelméleti szélsőértékfeladatról (Hungarian). Mat. Fiz. Lapok **48** (1941), 436—452. (7.7)
- TURNER, J.
- [Turn1] Point-symmetric graphs with a prime number of points. J. Comb. Theory **3** (1967), 136—145. (6.2)
- [Turn2] Generalized matrix functions and the graph isomorphism problem. SIAM J. Appl. Math. **16** (1968), 520—526. (1.4; 6.1)
- See also* [ElTu]
- TUTTE, W. T.
- [Tut1] The reconstruction problem in graph theory. British Polymer J., September 1977, 180—183. (9.5)
- [Tut2] All the king's horses. Univ. Waterloo Res. Report CORR 76-37. In: Graph Theory and Related Topics (Proceedings of the Conference held in honor of W. T. TUTTE on the occasion of his 60th birthday, ed. J. A. BONDY and U. S. R. MURTY), Academic Press, New York (to appear). (9.5)
- See also* [BrSST]
- VAN LINT, J. H., *see* LINT, J. H. VAN
- VAN NUFFELEN, C., *see* NUFFELEN, C. VAN
- WALLER, D. A.
- [Wal1] Eigenvalues of graphs and operations. In: Combinatorics, Proc. British Comb. Conf. 1973, London Math. Soc. Lecture Notes **13**, pp. 177—183. (1.5; 2.7; A)
- [Wal2] Regular eigenvalues of graphs and enumeration of spanning trees. In: Teorie Combinatorie (Coll. Int. Roma, 1973) t. I, Acc. Naz. Lincei, Roma 1976. (Atti dei Convegni Lincei **17** (1976), pp. 313—320. (1.5)
- [Wal3] General solution to the spanning tree enumeration problem in arbitrary multi-graph joins. IEEE Circuits and Systems CAS-23 (1976), 467—469. (1.5; 7.6)
- [Wal4] Double covers of graphs. Bull. Australian Math. Soc. **14** (1976), 233—248. (4.2)
- [Wal5] Quotient structures in Graph Theory. Graph Theory Newsletter **6** (No. 4) 1977, 12—18. (4.2)
- See also* [FaW1], [FaW2]
- WALLIS, J. S., *see* [WaSW]
- WALLIS, W. D.
- * [WaSW] (with A. P. STREET and J. S. WALLIS), Combinatorics: Room Squares, Sum-Free Sets, Hadamard Matrices. (Lecture Notes in Mathematics 292), Springer-Verlag, Berlin—Heidelberg—New York 1972. (6.3)
- WEI, T. H.
- [Wei] The algebraic foundations of ranking theory. Thesis, Cambridge 1952. (3.5; 7.8)

WEICHSEL, P. M.

- [Weic] The Kronecker product of graphs. *Proc. Amer. Math. Soc.* **13** (1962), 47–52. (2.5; 7.4)

WHITE, A. T., *see* [LiWh]

WIGNER, E. P.

- * [Wign] *Group Theory and Its Application to the Quantum Mechanics of Atomic Spectra.* Academic Press, New York—London 1959. (5.2)

See also [BIRH]

WILCOX, JR., C. F.

- [WiGT] (with I. GUTMAN and N. TRINAJSTIĆ), Graph theory and molecular orbitals, XI. Aromatic substitution. *Tetrahedron* **31** (1975), 147–152. (8.1)

See also [HaWi], [GuRTW], [GuTW].

WILD, U.

- [WiKG] (with J. KELLER and Hs. H. GÜNTARD), Symmetry properties of the Hückel matrix. *Theoret. Chim. Acta* **14** (1969), 383–395. (5.2)

WILF, H. S.

- [Wil1] The friendship theorem. In: *Combinatorial Mathematics and Its Applications* (ed. D. J. A. WELSH), Academic Press, New York—London 1971, pp. 307–309. (7.1)

- [Wil2] The eigenvalues of a graph and its chromatic number. *J. London Math. Soc.* **42** (1967), 330–332. (3.2; 7.7)

WILSON, R. M.

- [Wi, RM] Nonisomorphic Steiner triple systems. *Math. Z.* **135** (1974), 303–313. (6.1)

WILSON, R. J.

- [Wi, RJ1] On the adjacency matrix of a graph. In: *Combinatorics* (Proc. Conf. Comb. Math., Math. Inst., Oxford 1972, ed. D. J. A. WELSH, D. R. WOODALL). The Institute of Mathematics and its Applications, Southend-on-Sea 1972, pp. 295–321. (9.5)

- * [Wi, RJ2] *Introduction to Graph Theory.* Oliver & Boyd, Edinburgh 1972. (0)

See also [VHJC]

WYBOURNE, B. G.

- * [Wybo] *Classical groups for physicists.* John Wiley & Sons, New York 1974. (6.3)

YAMAMOTO, S.

- [YaFH] (with Y. FUJII and N. HAMADA), Composition of some series of association algebras. *J. Sci. Hiroshima Univ. (A–I)* **29** (1965), 181–215.

YAP, H. D., *see* [TeYa]

ZAHRADNÍK, R.

- [ZaM1] (with J. MICHL), Tables of quantum chemical data, IV. Molecular orbitals of hydrocarbons of the pentalene, azulene and heptalene series. *Coll. Czech. Chem. Comm.* **30** (1965), 3173–3188. (A)

- [ZaM2] (with J. MICHL), Tables of quantum chemical data, V. Molecular orbitals of peri-condensed triecyclic hydrocarbons. *Coll. Czech. Chem. Comm.* **30** (1965), 3529–3536. (A)

- [ZaM3] (with J. MICHL), Tables of quantum chemical data, VII. Molecular orbitals of indacene-like and some peri-condensed tetracyclic hydrocarbons. *Coll. Czech. Chem. Comm.* **30** (1965), 3550–3560. (A)

- [ZaMK1] (with J. MICHL and J. KOUTECKÝ), Tables of quantum chemical data, II. Energy characteristics of some nonalternant hydrocarbons. *Coll. Czech. Chem. Comm.* **29** (1964), 1933–1944. (A)

- [ZaMK2] (with J. MICHL and J. KOUTECKÝ), Tables of quantum chemical data, III. Molecular orbitals of some fluoranthene-like hydrocarbons, cyclopentadienyl, and some of its benzo and naphtho derivatives. *Coll. Czech. Chem. Comm.* **29** (1964), 3184–3210. (A)

- [ZaPá] (with C. PÁRKÁNYI), Tables of quantum chemical data, VI. Energy characteristics of some alternant hydrocarbons. *Coll. Czech. Chem. Comm.* **30** (1965), 3536–3549. (A)

See also [HoKZ]

ŽIVKOVIĆ, T.

[Živk] Calculation of the non-bonding molecular orbitals in the Hückel theory. *Croat. Chem. Acta* **44** (1972), 351–364. (8.1)

[ŽiTR] (with N. TRINAJSTIĆ and M. RANDIĆ), On conjugated molecules with identical topological spectra. *Mol. Phys.* **30** (1975), 517–533. (6.1)

See also [GrGTŽ], [GuTŽ], [KnTŽ], [RaTŽ]

Part II

АРЛАЗАРОВ, В. Л.

* [АрЛР] (with A. A. ЛЕМАН and M. З. РОЗЕНФЕЛЬД), Построение и исследование на ЭВМ графов с 25, 26 и 29 вершинами. Институт проблем управления, Москва 1975. (7.2)

БЕЛОНОВ, В. А.

* [БеФо] (with A. Н. ФОМИН), Матричные представления в теории конечных групп. Изд. „Наука“, Москва 1976. (5.2)

БЕЦЕ, А.

[Беце] О коэффициентах характеристического полинома графа. *Латв. Матем. Ежегодник* **3** (1968), 75–80. (1.4)

БОЧВАР, Д. А.

[БоС1] (with И. В. СТАНКЕВИЧ), Уровни энергии некоторых макромолекул с системой сопряженных двойных и тройных связей. *Ж. Структ. Хим.* **8** (1967), 943–949.

[БоС2] (with И. В. СТАНКЕВИЧ), Качественный анализ топологической матрицы и правило Хюккеля $4n + 2$, сообщение I. *Ж. Структ. Хим.* **10** (1969), 680–685.

[БоС3] (with И. В. СТАНКЕВИЧ), Качественный анализ топологической матрицы и правило Хюккеля $4n + 2$, II. Некоторые углеводородные системы. *Ж. Структ. Хим.* **12** (1971), 142–146.

[БоС4] (with И. В. СТАНКЕВИЧ), Качественный анализ топологической матрицы и правило Хюккеля $4n + 2$, III. Сопряженные системы с большим дефицитом π -электронов. *Ж. Структ. Хим.* **13** (1972), 1123–1127.

ВАРВАК, Л. П.

[Варв] Узагальнення поняття p -суми графів (Ukrainian). *Доповіді АН УРСР*, 1968, А, No. 11, 965–968. (2.5)

ВАХОВСКИЙ, Е. В.

[Вах1] О характеристических числах матриц соседства для неособенных графов. *Сибир. Матем. Ж.* **6** (1965), 44–49. (1.2; 2.4; 3.2; 8.5)

[Вах2] Об одном способе демонтажа графа. *Сибир. Матем. Ж.* **9** (1968), 255–263. (8.1)

ВИГНЕР, Е.

* [Вигн] Теория групп и ее приложения к квантовомеханической теории атомных спектров. Изд. иностр. лит., Москва 1961 (Translation of [Wign]). (5.2)

ВИЗИНГ, В. Г.

[Визи] Декартово произведение графов. *Вычисл. Системы* **9** (1963), 30–43. (7.4)

ГАНТМАХЕР, Р. Ф., see [Gant]

ДАМБИТ, Я. Я.

[Дамб] Свойства некоторых полиномов матриц циклов и разрезов графа. *Латв. Матем. Ежегодник* **4** (1968), 59–71.

ДОЧЕВ, К.

[Доче] Върху решението на едно диференциално уравнение и свързаната с него задача от комбинаториката (Bulgarian). *Физ. Мат. Спис. Българ. Акад. Наук* **6** (39) (1963), 284–287. (7.5)