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coefficients in gas absorption; ABSORPTION INTO A STAGNANT LIQUID; ABSORPTION INTO SURFACE OF TURBULENT LIQUID; PACKED ABSORPTION TOWERS; NONHOMOGENEOUS DISTRIBUTION OF SURFACE AGES; DERIVATION OF EXPRESSIONS FOR R IN VARIOUS TYPES OF SYSTEM; CONCLUSION; NOMENCLATURE
LITERATURE CITED Chapter B2. Kinetics of liquid-film processes in gas absorption. Part I: Models of the absorption process; The Three Models; Prediction of Effect of Physico-Chemical Factors; Discussion; References; Part II: Measurements of transTent absorption rates; Introduction; The Rotating Drum Method; Interpretation of Results; Comparison with Absorption in Packed Column; Conclusions; Acknowledgment; Nomenclature; References; Chapter B3. The kinetics of absorption of carbon dioxide into neutral and alkaline solutions; EXPERIMENTAL; RESULTS AND DISCUSSION; CONCLUSIONS APPENDIX I THE DEPLETION OF SODIUM HYDROXIDE AND BUFFER SOLUTIONS BY REACTIONNOTAION; REFERENCES; Chapter B4. Kinetics of CO2 absorption in alkaline solutions - I Transient absorption rates and catalysis by arsenite; EXPERIMENTAL METHOD; RESULTS; NOTATION; REFERENCES; Chapter B5. Kinetics of CO2 absorption in alkaline solutions-II. Absorption in a packed column and tests of surface renewal models; INTRODUCTION; EXPERIMENTAL; RESULTS; PREDICTION OF ABSORPTION RATES; DISCUSSION; CONCLUSIONS; NOTATION; REFERENCES; Chapter B6. Kinetics of CO2 absorption - III. First-order reaction in a packed column

Sommario/riassunto

A selection of papers many of which proved novel and thought-provoking and have had a considerable influence on the development of chemical engineering, chosen by Professor Danckwerts from research work conducted at Cambridge and Imperial College mainly during the years 1950-1954 and 1957-1973. They are divided into 6 sections with linking critical commentaries.