

CHAPTER X

PUBLICATIONS IN 1965 - 66

CHEMICAL ENGINEERING

Title	Authors	Journal
Improved estimation of Latent Heat	G. Narsimhan	Chern. Engg. (U.S.A.), 75,157 (1966)
Temperature Dependence of Liquid Heat Capacities	G. Narsimhan	IJT, 4 , 129 (1966)
On a Generalized Expression for Prediction of minimum Fluidization Velocity	G. Narsimhan	A. I. Ch. E. Journal 11,550-554 (1965)
Some Physical Properties of Ethylene Amines	G. Narsimhan	Chern. and Proc. Engg. 46 , 498 (1965)
A Generalized Chart for Saturated Liquid Densities	G. Narsimhan	Ind. J. Tech., 3,230 (1965)
Performance Characteristics of a Two Fluid Atomizer	N. N. Kaura, S. K. Verma and M. N. Rao	- Fluidization and Related Processes, Publications & Information Directorate, C.S.T.R., New Delhi (1966)
Self-Diffusion of Ions Inside Ion Exchange-Resins	M. Gopala Rao	Communicated to Chem. Engineering Science (London)
Diffusion in Ion Exchange Resins: Sodium Ion-Strontium Ion System	M. Gopala Rao	Chemical Engg. Science (London) 20, p889 (1965)
Diffusion in Multicomponent Systems	C. V. Seshadri	A. I. Ch. E. Journal, July, 1965
Mass Transfer in a Multicomponent Mixture of Ideal Gases	C. V. Seshadri	A. I. Ch. E. J. Sept., 1965
Flow Pattern of a liquid on a Vaned Disk Atomizer	N. N.- Kaura M. N. Rao	Indian J. Technology, Vol. 3, No.1. Jan. (1965)
Equilibrium at the Solid-Liquid Interface	A. Vasudev W. J. Heideger	Nature, No. 622 (1966)

J

Title

Authors

Journal

Anisotropic Diffusivities in Pressed Catalyst Pellets

S. K. Saraf
C. N. Satterfield
C. E. Dryden

I&EC Fundamentals, 4 (4), 451 (1965)
Affiliated East-West Press Pvt. Ltd., New
Delhi

~nes of Chemical TeCh~:gy) 10,,, '0.

CHEMISTRY

I~

Crystal field spectra .of same Tris (salicylaldimine) cabalt (III) chela tes

A. Chakravarthy.
K. C. Kalia and
T. S. Kannan
S. S. Katiyar and
.others

Inarg. Chern., 5 1623. (1966)

Analytical Applicatians .of Salachrome Azurine BS:

New methad far the selective dete~tian .of capper
The Electran spin resanance spectrum .of the dicyclapryl
Ketane radical anian

N. K. Ray.
R. K. Gupta, and P.
T. Narasimhan

Talanta, 12, (1965)

Mal. Phys., 10, 601 (1966)

Isatape effects. an Oscillatar strengths .of n ~*
transitians

Spectrascapic studies .of danar-acceptar hydragen
bandin"g

C. N. R. Raa and
A. S. N. Murthy
S. Singh,
A. S. N. Murthy and
C. N. R. Raa
S. Singh and
C. N. R. Raa

Prac. Phys. Sac. (Landan) 87,7¹
(1966)

. Trans. Faraday Sac. 62, 1056 (1966)

J. Amer. Chern. .Sac., 88,2142 (1966)

Spectrascapic studies .of n-danar-O"-acceptar systems:
Thiaureas

K. R. Bhaskar,
R. K. Gasavi and
C. N. R. Raa

Trans. Faraday Sac., 88, 29 (1966)

.Spectrascapic studies .of n-danar-O"-acceptar systems:
Carbanyl and thiacarbanyl compaunds

K. R. Bhaskar,
A. S. N. Murthy,
S. N. Bhat and
C. N. R. Raa

Trans. Faraday Soc. 62, 788, (1966)

Title	Authors	Journal
Kinetics of transformation of outer charge-transfer complexes to the Inner complexes Cosmic-Ray Records in Meteorites	S. N. Bhat and C. N. R. Rao P. S; Goel	J. Amer. Chern. Soc. 88, 3216 (1966)
Recent progress in. the Chemistry of Allenes	D. Devaprabhakara P.S. Sampath Kumar	J-Sci-Tndist. Res., 25, 234 (1966)
Phase transformation, hydration and Oxidation of Pr_2O_3	R. L. N Sastry, P. N. Mehrotra C. N. R. Rao	Trans. Faraday Soc. 62, 1632 (1966)
Preparation, Characterisation and thermal decomposition	R.L.N. Sastry, S. R. Yoganarasim art P. N. Mehrotra and C. N. R. Rao	J. Inorg. Nuc. chern., 28, 2167 (1966)
Crystal structure transformations of alkali sulfates, nitrates and related compounds: Thermal hysteresis in reversible transformations.	K. J. Rao and C; N. R. Rao	J. Materials Sci., I, 238 (1966)
Hartree-Fock-slater Wave functions and Magnetic properties of Rare Gas atoms	K. M.S. Saxena and J. Narasimhan	J. Chern. Phys., 42, 4304 (1965) P. T.
Molecular orbital study of some heterocycles containing nitrogen and sulfur.	N. K. Ray and P. T. Narasimhan	Theor. Chim. Acta, 5,401 (1966)
Perturbation approach to the. proton spin coupling in the ethane Fragment.	P. Chandra and P. T. Narasimhan	Mol. Phys., 11, 189 (1966)
Structure and reactivity of Organic azides	E. Leiber, J. S. Curtice and C. N. R. Rao	Chern. Ind. (London), 586 (1966)

Title	Authors	Journal
catalytic reactions of some hexasubstituted disiloxanes by alkali metals	M. V. George and H. Gilman	J. Organometal. Chem., 5, 89 (1966)
Reactions of the azobenzene-dilithium adduct with some substituted compound of silicon, Germanium, tin and lead.	M. V. George, P. B. Talukdar and H. Gilman	J. Organometal. Chem., 5, 397 (1966)
CIVIL ENGINEERING		
Diffusion of Sediment in a Submerged Jet.	S. R. Singamsetti	Journal of the Hydraulics Div., ASCE, Vol. 92, No. HY 2, Proc. Paper 4726, March 1966.
An Approximate Theory for the Vibrations of Hollow Elastic rods.	H. D. McNiven, A. H. Shah, J. L. Sackman	Report No. 65-13, Nov. 65 Structures and Materials Research Dept. of Civil Engg. Univ. of California Berkeley. Report 65-14 Dec. 1965.
An investigation of Elastic waves with imaginary and complex wave numbers in hollow rods.	H. D. McNiven, J. L. Sackman & A. H. Shah	Journal, Inst. of Engineers, July 65.
Carryover and Stiffness factor of a two way slab.	P. Dayaratnam	Indian Concrete Journal, Sept. 1965.
Ultimate load of R. C. C. Column with Tilted Curvature in the Reinforcement.	P. Dayaratnam (D.L. Narasimharao)	Indian Concrete Journal Jan. 1966
Buckling of Column Loaded along its length. Model Study of Hyperbolic paraboloidal Shells	P. Dayaratnam, P. Dayaratnam (S. Pradhman and V. Jagannadharao), K. K. Rampal	The Journal of American Concrete Institute May 1966.
Survey adjustments by Digital Computer	S. Pradhman and V. Jagannadharao, K. K. Rampal	Journal, Institution of Engineers July 1966. Journal, A.L.A.A. Dec. 1965.
On the Nonlinear Dynamic Behaviour of Shallow Spherical Shells.	R. R. Archer	

90



	Author's Name	Journal
Mineral Resources of P, V. Region,	K,V,G K. Gokhale	Planning Commission, G. O. I. (June 1966)
ELECTRICAL ENGINEERING		
A High-speed Tunnel Diode Counter	T.R. Viswanathan & A. D. Booth	Journal of J.E.R.E. (September 1965)
A Game Theoretic Approach to Optimal Control of Plants with Parameter Uncertainty	R. K. Ragade & I. G. Sarma	Research Report EE-65-1, Department of Electrical Engineering, IIT Kanpur
HUMANITIES		
Philosophical Synthesis	Dr. R. Prasad	Proceedings of the Indian Philosophical Congress and the Philosophical Quarterly, 1966
Tradition, Progress & Modern Indian Philosophy Three types of Ethical Analysis	Dr. R. Prasad Dr. R. Prasad	Philosophy: East & West, 1965 A chapter in Dhirendra Mohan Datta Cornernoration , Vol. ed. by Erwing, Moor, et. al. 1965
A Functional Analysis of Language	Dr. R. Prasad	A Chapter in Contemporary Indian Thought ed. by Murty and Rao 1965
Modern Logic & Philosophy: Their Relationship	Dr. R. Prasad	Univ. of Jaipur: Proceedings of the Seminar on Logic, 1965
Language and Reality	Dr. R. Prasad	Banaras Hindu University: Proceedings of the Seminar on Logic, 1965
'Effectiveness of short duration contacts in popularizing family planning in rural India'	Dr. K. K. Singh	National Institute of Community Development Journal June 1966
Some Socio-psychological dimensions of political responsibility	Dr. K. K. Singh	International Project on Social Values. No. Ind. 31

	Authors	Journal
A Comparison of Husbands' and Wives, Attitudes Toward Family Planning Hawthorne on Imagination	Dr. B. D. Misra Dr. R. K. Gupta	The Journal of Family, Welfare Vol. XII, No.4 June, 1966 American Studies Research Centre News Letter for July 1966 (No.9) Jr. of G.S.V.M College, Kanpur, 1966
The Place of Humanities and Social Sciences in Under-graduate Medical Curriculum Charlotte Bronte: Champion of Woman's Economic Independence, Time Intensity Relation for Absolute Limen in Visual Perceptions at Kurmipur	Dr. P. P. Sharma Dr. P. P. Sharma, Mr. O. P. Tayal	Bronte Society Transaction for the year 1965 Ind. Psych. Rev. 1965, 2, 41,46
Polarization at Thakurpur : The Process and the Pattern Individual, Social Situation and Societal Predicaments	Mr. P. N. Rastogi Mr. P. N. Rastogi Mr. P. N. Rastogi	Man in India~ Dec. 65 , Sociological Bulletin April '66 Indian Sociological Bulletin April '66
MATHEMATICS		
'Motion of Ellis and Reiner-Phillippoff fluids in pipes and channels On the flow of two non-conducting immiscible fluids between two non-conducting plates Superposability and self-superposability in fluid dynamics-II' Flow of Reinforced-Rivlin fluids in the entrance of a tube	J. N. Kapur R. C. Gupta J. N. Kapur J. B. Shukla J. N. Kapur B. L. Bhatia J. N. Kapur R.C. Gupta J. N. Kapur R L. Bhatia	Arch. Mech. Stos. Poland, 1, 17, p3142, 1965 Revue de la faculte des sciences, Istanbul, XXIX, 1964 Proc. Nat. Inst. Sci. Ind., Vol. 31, A, No.2, p. 126-151, 1965 Acta. Technic(CSSR, Czechoslovakia, 10,4, p. 388-394, 1965 Revue de la faculte des sciences, Istanbul, Vol. '29, Series A, 1964

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1

Titlt'	Authors	, Journal
√ Two-dimensional flow of a Reiner-Phillippoff fluid m the inlet length of a straight channel	J. N. Kapur R. C. Gupta	App. Sci. Res. XIV A 13-24, 1965
Streamline flow in a curved annulus	J. N. Kapur V. P. Tyagl and R. C. Srivastava	App. Sci. Res. X~2tL' 2~:~2J 1966
Some aspects of magnetohydrodynamics-III	J. N. Kapur	Bull. Inst. postgraduate studies Vniv. Delhi II, 1-16, 1965
On the cons.titutive relations for a class of Reiner-Rivlin . J. N. Kapur fluids R. C. Gupta	J. N. Kapur	Defence Science Journal, - 16, 1,21-24, 1966 -
Kinetic energy end-correction. for Newtonian and non- J. N. Kapur Newtonian fluid flows in the inlet length of an annulus	R. R. Dikshit	Proc.Nat. Acad. Sci. Ind.' XXXV, Sec. A, pC 1, P 69,,78, 1965
√ Pressure drop for the flow of Non-Newtonian fluids in J. N. Kapur the inlet length or a straight channel	R. -C. Gupta	Rev. Rotim. Sc. Tech. Mech. App. Roumania, Tome 10, No.6, p 13791384, Buca,rest,1965'
On the internal ballistics ofa high-velocity light gas gun	J. N. Kapur V. K. Srivastava	Mem. ArC Francaise, 1 er fase., p. 230-242, 1965
An elliptic region with plane harmonic temperature distribution with insulated boundary	R. D. Bhargava C. B. Sharma	Bull De. L. Academic Polonaise Des Sciences Vol. XII, No. 557~564, 1964
Circular indusion in an infinite elastic medium with a circular inhomogeneity. .	R. D. Bhargava O. P. Kapoor	Proc~ Camb. Phil. Soc., 62, pH3-2127". 1966
Finite spherical inhomogeneities in concentric shells	R. D. Bhargava D. Pande	Ind. Jour. of Phy., Vol XXXIX, No. p, 428-133, 191~5
Some mixed boundary value problems for regions with spherical boundaries	R. P. Srivastava Prem Narain	Jour. of Math. and Mec',., Vol. 14, N 0-4,p-613-628, 1965
A two-dimensional indentation problem for a heated puncn.	R. P. Srivastava Prem Narain	8th:-Cong. on theo .. and App. Mech., Delhi 1963

Title	Authors	Journal
On the Injective and Projective limits of complexes	(Mrs) K. Tewari	Can. J. Math. (MMJ). Bulletin, Vol. 8~ No.3, p. 2~1-30, 1965
Magnetohydrodynamically lubricated externally pres- bearing with variable film-thickness	J. B. Shukla	App. Sci. Res. Holland. Sec. B, Vol. 11 p. 453-460, 1965
Magnetohydrodynamically lubricated externally pre- bearing with variable film thickness	J. B. Shukla	Proc. Summer Seminar in Magnetohydrodynamics, Indian Institute of Science, - Bangalore, p. 341-348, 1963 ASME, Transaction 65-LUBS-6, 1965
Hydromagnetic squeeze films between two conducting surfaces Steady flows of two conducting incompressible and im- (fluids'	J. B. Shukla R. Prasad J. B. Shukla R. Prasad	Revue de la Faculte des Sciences de l'Universite d' Istanbul. Series A Vol. 29, p: 1-8, 1966
On the means of an entire function and its derivatives	O. P. Juneja	'Monatshefte fur Mathematik', Austria, 40, p. 33~38, 1966
On the zeros of entire functions	O. P. Juneja	Riv. Math. Univ. Barma, 2, 4, p. 275~79, 1963
Flow of a conducting Bingham plastics between two porous plates with Suction and injection under a transverse magnetic field	R. K. Rathy	Revue de la Faculte des Sciences de l' universite d' Istanbul, Vol. 28, Series A, p. 35-44, 1963
Flow of a conducting Bingham Plastics through an annulus with suction and injection under a radial magnetic field	R. K. Rathy	Revue de la faculte des sciences de l' universite d' Istanbul, Vol. 28, Series A, p. 19-33, 1963.
Some queues with Hyper-General service Time Distributions.	S. K. Gupta	J. of Canadian O. R. Society. Canada, Vol. 3, No. 2, p. 90-95, '1965
Analysis of a two-channel Queuing problem with ordered Entry	S. K. Gupta	J. of Ind. Engg. America, Vol. XVII, NO.1 P. 54-55, 1966

Authors

Queues with Batch Poisson arrivals and hyperexponential service time distribution - S. K. Gupta

Queues with Poisson input and mixed-Erlangian service time distribution with finite waiting space S. K. Gupta

Queues with Batch Poisson arrivals and a general class of service time distributions S. K. Gupta

Hydrodynamic lubrication of an externally pressurised bearing using a Reiner-Rivlin lubricant R. C. Srivastava

Prem Singh

On the type of integral functions

Forced convection of a dissipative fluid in a channel with Neumann conditions V. P. Tyagi

Heat Transfer and skin friction in a channel-laminar flow with variable physical properties V. P. Tyagi

Flow development in the hydrodynamic entrance region of a flat duct R. C. Gupta

D. G. Dastidar

A method for solving plane stress problems in plasticity

Journal

Norv. Res. Qty., Sept. Dec., p. 323-329, 1965

J. O. R. Soc. of Japan, Vol. 8, No. I, p. 24-31, 1965

J. Ind. Engg. Vol. XV, No.6, p. 319320, 1964

App. Sc. Res., Sec. A, Vol. 14, p.133-137,1965

Inst. Mathe. Univ. Debreceniensis Hungaria, Tom. 12, Fasc.1-4, p: 1-6, 1965

Jour. of App. Mech. Trans, ASME, Series E. Vol. 33, NO.1, p. 18-24, 1966

Int. Jour. Heat Mass Transfer, Vol 8, p. 1481-1490, 1965

A.I. Ch.E. Journal Vol. 11, NO.6, p. 1149-51,196, 1965

VIIIth Congress of Theoretical and Applied Mechanics Delhi,p25,-32, 1963

BOOKS

Title

Dynamics

Authors

J. N. Kapur .T.
D. Gupta'

"

Published by

Ram Chand and Co. 1966

Title	Authors	Published by
<p>The spirit of Mathematics Essays on Mathematics - N. Kapur</p> <p>MECHANICAL ENGINEERING</p>	<p>J. N. Kapur N. Kapur</p>	<p>Arya Book Depot, Delhi, 1966 Rani - Gharidand - Co., Delhi, 1966</p>
<p>Study of the Spectrum of Jet Tones & Edge Tones</p> <p>Rev. of the book by Elowsu, Id</p> <p>Wave Motion in Elasticity</p> <p>Plutonium Fueled Thermal reactors with high conversion ratios</p> <p>Cantilever Beam of the Timoshenko Type</p> <p>Uniform Load varying with Time</p> <p>MECHANICAL ENGINEERING</p> <p>Structure and electrical conductivity of ThO_2 - Y₂O₃</p> <p>Thermal Martensite Kinetics in Iron Alloys</p>	<p>Dr. M. M. Oberai</p> <p>Dr. K. S. Yajnik</p> <p>Dr. K. S. Yajnik Mr. Y. Chaudhari</p> <p>J. Chernick</p> <p>Dr. V. Kadambi</p>	<p>Journal</p> <p>UCLA Department of Engineering Report 65-50 November, 1965</p> <p>10th Indian National Congress of Theoretical and Applied Mechanics, Dec. 1965</p> <p>10th Indian National Congress of Theoretical and Applied Mechanics, Dec. 1965</p> <p>'Dr. G.' Srikantiah & Jour. Nuclear Science & Engineering 21, 165, 1965</p> <p>10th Indian National Congress of Theoretical and Applied Mechanics, Dec. 1965</p>
<p>MECHANICAL ENGINEERING</p> <p>Structure and electrical conductivity of ThO_2 - Y₂O₃</p> <p>Thermal Martensite Kinetics in Iron Alloys</p>	<p>J. Am. Ceramics Soc., 48 443-446. 1965</p> <p>Special Report No. 93, The Iron & Steel Institute (London), 1965, pp. 30-37</p>	

Title	Author	Journal
Dislocation Interactions	M. N. Shetty	I. J P. App. Phy. April: 1966
PHYSICS		
Possible splitting of energy levels of atoms or ions in octahedral crystals due to sets of equivalent neighbouring defects	P. Venkateswarlu	Proc. Ind. Acad. Sci., 62, 249, 1965
Electron spin resonance of Mn ²⁺ in NaCl single crystal and lattice defects	K. N. Srivastava P. Venkateswarlu	Proc. Ind. Acad. Sci., 63, 284, 1966
Forbidden hyperfine transitions in ESR of Mn ²⁺ in NaCl single crystal	K. N. Srivastava P. Venkateswarlu	Proc. Ind. Acad. Sci., 63, 311, 19~6
The Probable iodine molecular lasers	P. Venkateswarlu	Proc. Ind. Acad. Sci, 64, 9, 1965
The emission spectrum of Snq,	D. Ramchandra Rao P. R. K. Sarma P. Venkateswarlu,	Jour. Mol. Spec. 17,252, 1965
The emission spectrum of SnBr,	P. R. K. Sarma P. Venkateswarlu	Jour. Mol. Spec. 17, 203, 1965
Scattering of phonons from a substitutional impurity in body centred and face centred cubic lattices	M. Yussouff J. Mahanty	Proc. Phys. Soc. 85 1223-35; 87, 689701
Dynamical Behaviour of an atom in a diatomic linear lattice	K. Patnaik	Ind. Jour. Pure and Appl. Phys. 3, 462 (1965),
Scattering of band electrons from an impurity	C. Mehrotra	Ind. Jour. of Pure and Appl. Phys. 3, 77 (1965)
The Fourier Expansion Method for computation of the Frequency Distribution Function of Crystals	V. K. Tewary, K. G.	Proc. Phys Soc.(Lond.), 86, 1225(1965)
Aggarwal	J.	
Mahanty		

-J'
-J.

Title	Author	Journal
Neutron Exchange in reaction P+P d+ τ	J. Mathews B. Deo	Phys. Rev. 143 (1340), 1966
r-Auxiliary field method for vector field theories Deuteron production in collisions	B. B. Deo B. B. Deo P. K. Patnaik	Phys. Rev. 145, 1171 (1966) Proceedings of high energy, cosmic ray) astrophysics conference, Bombay 1966.
Theory of anharmonic crystals, Thermal expansion of a linear lattice	K. N. Pathak K. N. Pathak B. B. Deo	Phys. Rev. 139 A1569 (1965)
- Calculation of thermal conductivity by Kubo Formula	B. Deo S. N. Behera	Phys. Rev. 141 , (738) 1966

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