

### Publications

The following research papers were published or communicated:-

Subject	Author	Journal
<i>CHEMISTRY</i>		
1. On the stabilization of Malachite Green	Sarvagya S. Katiyar	Naturwissenschaft. 49, 325 (1962)
2. Spectrophotometric studies on the Kinetics of Reaction of Malachite Green with Acidseffect of solvents	13.l-Isonicotinoyl Sarvagya S. Hy.drazine as a new Chelatome- tric'Reagent	2-Salicyldene Katiyar & S. N . T Z.Physik Chemic, Neuefolge 34, 346(1962)
3. Further studies on Kinetics of Reaction of Malachite Green with Acids. Influence of Temperature	-do-	Bull Chern. Soc. . (Japan) 35, 1772 (1962)
4. Studies in possible oral hypoglycemic agents. PI. II Synthesis of hydantoin and hydantoic esters by alternated methods	D. N. Dhar	Jour. Sci. Industr. Res. 20 145-147 (1961)
5. Reaction Mechanism for the condensation of Chalkone with Flavanones and acetophenone	-do-	Agra University Jour. Research (Science) 10, 75-78 (1961)
6. Chalkones. Part V. Synthesis of hydroxy and methoxy chalkones	-do-	Jour. of Indian Chern. Society (Accepted for publication)
7. Amperometric Determination of Cobalt as 'Tellurite'	V. D. Anand	Z. Analyt. Chern., 180, 174-81 (1961)
8. New Selective Reagent for Cobalt as p-Nitrophenylhydrazone of pyruvaldoxime.	-do-	Chemist -Analyst, 50, 44-45 (1961)
4.	- do-	

9. Conductometric Determination of Thorium  
V. D. Anand  
J. Sci. Industr. Res. (India)  
20 B,356-57, (1961)
10. ~mperometric Determination with the help of Selenites; Determination of Cobalt  
-do-  
Z. analyt Chern. 182, 324, (1961)
- II. A New Specific Test for Cobalt
12. St~dies on the Reaction of Malachite Green with Acids Influence of Ionic Strength  
-do-  
Mikro Chim. Acta, 4, 650-3, (1961)
13. I-Isonicotinoyl 2-Salicyldene Hydrazine as a new Chelator. Sarvagya S. Katiyar & S. N. Tandon  
S. Katiyar ✓  
Bull. Polon. Acad Sci. (Communicated)
14. On the Colour Reaction of Iron (III) with Hydroxy Toluic Acids Sarvagya S. Katiyar & V. B. S. Chauhan.  
Ind. Jour. of Chern. 1,94, (1963)
15. Stability of Iron (III) Chelate of Cresotic Acids. A spectrophometric study of Iron (III)-p Cresotic acid Chelate.  
-do-
16. Stability of Iron (III) Chelate of Cresotic Acids. A spectrophotometric study of Iron (III)-m-Cresotic Acid Chelate.  
Sarvagya S. Katiyar and V.B.S. Chauhan
17. A spectrophotometric study of Fe (III)-1 hydroxy 2-Naphthoic Acid Complex  
-do-
18. Stability of Iron (III) Chelate of Cresotic Acids: A spectrophotometric Study of Iron (III)-O Cresotic Acid Chelate.  
-do-

Z. Analyt. Chern. (Communicated)

J. Inorg Nucl. Chern. (Communicated)

Bull. Chern. Soc. of Japan (Accepted for  
publication)

Z. anorg. u-allgem Chemie (Communicated)

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| 9. Conductometric Determination of Thorium   | V. D. Anand                            | J. Sci. Industr. Res. (India)<br>20 B,356-57, (1961) |
| 10. Spectrometric Determination with the help of Selenites; Determination of Cobalt                                      | -do-                                   | Z. analyt. Chem.<br>182, 324, (1961)                 |
| 11. A New Specific Test for Cobalt   | -do-                                   | Mikro Chim. Acta, 4,<br>650-3, (1961)                |
| 12. Studies on the Reaction of Malachite Green with Acids Influence of Ionic Strength                                    | Sarvagya S. Katiyar & V. B. S. Chauhan | Bull. Polon. Acad. Sci. (Communicated)               |
| 13. Isonicotinoyl 2-Salicyldene Hydrazine as a new Chelating Reagent   | Sarvagya S. Katiyar & S. N. Tandon     | Talanta (In Press)                                   |
| 14. On the Colour Reaction of Iron (III) with Hydroxy Toluic Acids   | Sarvagya S. Katiyar & V. B. S. Chauhan | Ind. Jour. of Chem.<br>1,94, (1963)                  |
| 15. Stability of Iron (III) Chelate of Cresotic Acids. A spectrophotometric study of Iron (III)-p Cresotic acid Chelate. | -do-                                   | Z. Analyt. Chem. (Communicated)                      |
| 16. Stability of Iron (III) Chelate of Cresotic Acids. A spectrophotometric study of Iron (III)-m-Cresotic Acid Chelate. | Sarvagya S. Katiyar and V.B.S. Chauhan | J. Inorg Nucl. Chem. (Communicated)                  |
| 17. A spectrophotometric study of Fe (III)-1 hydroxy 2-Naphthoic Acid Complex  | -do-                                   | Bull. Chem. Soc. of Japan (Accepted for publication) |
| 18. Stability of Iron (III) Chelate of Cresotic Acids: A spectrophotometric Study of Iron (III)-O Cresotic Acid Chelate. | -do-                                   | Z. anorg. u-allgem. Chemie (Communicated)            |

*CIVIL ENGINEERING*

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| 1. Earth Dams with upstream slanting filter and its application to Earth Dam Design- in~ | V. J. Patel & Maheswari             | Fifth International Conference on Soil Mechanics and Foundation Engg. Paris, July, 1961. |
| 2. Effect of slow draw down in Earth Dams with upstream slanting filter                  | V. J. Patel & K. L. Arora           | 'Indian Journal of Power and, River Valley Development., August '61.                     |
| 3. Earth Dam with upstream slanting filter and clay-blanket on ' pervious foundations    | V. J. Patel & A.V. Gopalakrishnayya | Symposium on Earth and Rockfill Dams, Roorkee, Dec., '61.                                |
| 4. Design of Composite Earth Dams with zones sloping upstream                            | V. J. Patel & M. P. Kapur           | -do-   |
| 5. In the Selection of Earth Dams  | V. J. Patel                         | Institution of Engineers, Rajasthan Branch, Second Annual, Number, 1961.                 |
| 6. Economy Resulting from the New Technique in Earth Dams Design                         |                                     | Vishwakarma, Special Number; Feb., 1962.   |

*MATHEMATICS*

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| 1. On the stability of a solution in hydromagnetics in the presence of dissipative forces. | J. N. Kapur and R. K. Jain | Zeit fur Astrophysics, vol. 52, pp. 10-117.     |
| 2. A theoretical study of the validity of the isothermal model.                            | J. N. Kapur and B. S. Jain | Defence Science Journal, vol. 11, pp. 1-11.     |
| 3. The form function for: modified multitubular charges.                                   | J. N. Kapur and B. S. Jain | , Defence Science Journal, Vol. 11, pp. 131-156 |

4. J. N. Kapur on the existence and uniqueness of flows behind three dimensional curved shocks. Proc. Ind. Acad. Sci. Vol. 54 A, pp. 116-120.
5. The effect of correlation in gambler's ruin problem. J. N. Kapur Maths. Seminar Vol. 2, 146-159.
6. Superposability and self-superposability in fluid dynamics. J. N. Kapur Maths. Seminar, Vol. 2, 1-32.
7. On axially-symmetric non-Newtonian flows. J. N. Kapur and M. M. Oberoi Bull. Cal. Math. Soc. Vol. 52, 165-172.
8. Some properties of force-free J. N. Kapur fields. Maths. Seminar Vol. 2, 135-138.
- Stability of a simple solution in magnetohydro-dynamics. J. N. Kapur and R. K. Jain Maths. Seminar Vol. 2, 49-55.
10. Flow in an annulus with rotating porous walls. J. N. Kapur and S. C. Mallick Proc. 6th Congo Th. App. Mech. Vol. 6, pp. 125-140.
11. On visco-elastic flow through tubes. J. N. Kapur and Shashi Goel Bull. Cal. Math. Soc. Vol. 53, 1-6.
12. Two dimensional elastic inclusion problems. R. D. Bhargava and M. A. Jaswon Proc. Camb. Phil. Soc. Vol. 57, 669-680.
13. On the order and types of integral functions. R. S. L. Srivastava Rivista de Matematica, Vol. 10,
14. On the derivatives of the maximum term of an integral function. R.S.L. Srivastava Ganita, Vol. 11.
15. A note on the order of integral functions. " " Maths. Student Vol. 28.
16. On the order of integral functions defined by Dirichlet series. " " Proc. Arne. Math. Soc. Vol. 12.

17. Theory of shock waves in a compressible relativistic fluid I. G. L. Saini Journ. Maths: and Mech. Vol. 10, pp. 877-886.
18. " II " " Journ. Math: and Mech. Vol. 10, pp. 887-902.
19. Curves in a four space with non-positive definite metric form. A. C. Shamlhoke Rev. Math. Vol. 2, pp. 429-448.
20. Frenets formulae and curvature in a generalised Riemannian space. " " Review de la Faculte des sciences Istanbul Vol. 25, pp.9-16.

*MECHANICAL ENGINEERING*

- (i) Two Dimensional Elliptic Inclusion Bhargava, R.D.& Radhakrishna, H.C. Camb. Phil. Soc. (Accepted)
- (ii) Spherical and Circular Inclusion in Concentric Stressed Matrix " App. Sc. Re. (Accepted)
- (iii) Elliptic Inclusion in Stressed Matrix " Camb. Phil. Soc. (Accepted)

*PHYSICS*

Nuclear Magnetic Resonance Spectra of four Spin Systems and Part III P. Venkateswarlu and B.D.Nageswara Rao Proceedings Indian Academy of Sciences Vol. 54 p. 305, 1961

2. On the Nuclear Magnetic Resonance Spectra of 1,4-dinitrobenzene P. Venkateswarlu and B.D. Nageswara Rao Journal of Scientific and Industrial Research Vol. 206, P. 501, 1961

3. 'Nuclear Magnetic Resonance Spectra of  $A_2B_2X$  system' G. Aruldas Low Energy Nuclear Physics Symposium Dept. ' 'of Atomic Energy Madras, '62
- 4., . 'Nuclear Magnetic Resonance " C. C. Upreti Spectra of Para Fluoro Acet()- , p~u.~n~; ., ' , ':: ~ ~ -do .• 'laur'n'al of MolecuJa Spectroscopy Vol.7, NO.4 Oct., 1961
- 6 •. , .Generation of Prismatic Dis- A. So. Para.snid ' , ioeations duri~g Photolysis of ' SiiNer' Halides , PhiL Mag. 7, March, 1962
- 5 .. Em,~ssjon Spectrum of Si F~' Part I. The,' Band System in the region 2775-2179 A I?R.,I~ao . ,
7. Hardness or,'Silver Chloride A. S. Parasnis containing Impurities. Acta Metallurgica 9,165, 1961.