Corrosion Activities in India—1969

Research and development activities in the field of corrosion have received a marked impetus in India during the last decade, and the tempo was well maintained during the year under review. The ECS of India, Bangalore and the SAEST, Karaikudi have been active professional organisations promoting the interests of various aspects of electrochemistry including corrosion. The annual meetings of the CSIR have been quite stimulating.

The following symposia—special technical meetings were held: (a) ECS of India—Batteries, (b) CECRI, Karaikudi—Electrochemistry Seminar, (c) I. I. Chem. E—Materials of Construction, (d) SAEST—Dissolution of Metals. Papers were contributed from India at the Fourth International Congress on Metallic Corrosion, Amsterdam. A Cavitation Research Centre has been opened at Poona. The JECS of India covered special abstracts on corrosion in one issue. The Course on "Plastics for Engineers" organized by the Institution of Engineers (India), Mysore Centre and ECS of India during 1968 has been published in two issues of the Journal of the former Institution, Part GE1 and GE3.

Broadly speaking the topics dealt with covered fundamentals, general corrosion, design, materials of construction, corrosion resistant materials, passivity and inhibition, protective coatings, cathodic protection and specific corrosion problems.

Published Papers

1 "Corrosion in Steel Plants", Corrosion Advisory Bureau, CSIR, Jamshedpur, 118 pp (1969).

2 **Design of a centrifugal pump for corrosive and abrasive slurries**—S. Narayanan, Chem. Age of India, **20**, 403 (1969).

3 **Studies on the resistance of alloy steels against oil-ash corrosion**—Part II—H. R. Thilakan, A. K. Lahiri and T. Banerjee, NML Tech. J., **11**, No. 1, 12 (1969).

4 **Inhibition of the corrosion of brass in nitric acid: studies with thiourea and nicotinic acid**—(Mrs) D. K. Padma and T. L. Rama Char, Anti-Corrosion Methods and Materials, **16**, No. 4 12 (1969).

5 **Plastics in engineering—recent applications**—T. L. Rama Char and K. L. Vasanth, J. Inst. Engineers (India), **49**, No. 9, Pt. GE3, 158 (1969).

6 **Activation of passivated steel in borax solution**—K. S. Rajagopalan, K. Venu and M. Viswanathan, Corrosion Science, **9**, 169 (1969).

7 **The structure of amines and their inhibitive action on the corrosion of 63 Cu-37 Zn in HNO_3**—M. N. Desai, Y. C. Shah and M. H. Gandhi, ibid, 9, 65 (1969).

8 **Behaviour of aluminium in alkaline and neutral tartrate and citrate solutions**—N. Subramanyan and A. R. Yamuna, Brit. Corrosion J., **4**, No. 1, 32 (1969).

9 **Corrosion studies of aluminium-brass condenser tube material**—K. Balakrishnan etal, corrosion, 25, 92 (1969).

10 **Corrosion studies on Al—9% Si—1% Ni alloy in high temperature water**—J. B. Gnanamoorthy and J. Balachandra, Trans. Ind. Inst. Metals, **22**, No. 1, 67 (1969).

11 **Inhibition of corrosion of aluminium in trichloroacetic acid**—J. D. Talati and B. M. Patel, Indian J. Tech., **7**, 62 (1969).

12 **Cathodic protection—applications in underground and marine Corrosion**—(Miss) V. Vasantasree, J. Institution of Engineers (India), **49**, No. 6, Pt. CH2, 29 (1969).

13 **Indian Commercial aluminium as a dry-cell anode**—K. I. Vasu, ibid, **49**, No. 6, Pt. CH2, 47 (1969).

14 **Corrosion of light gauge steel—protection schemes evaluated**—ISI Bulletin, **21**, 386 (1969).

15 **Corrosion inhibitors in industry**—T. L. Rama Char and (Mrs.) D. K. Padma, Trans. Inst. Chem. Engineers, **47**, No. 7, T 177 (1969).

16 **Plastics as materials of construction—design and corrosion resistance**—S. S. Misra, J. Inst. Engineers (India), 50, No. 1, Pt. GE1, 6 (1969).

17 **Some aspects of corrosion research**—T. L. Rama Char, Anti-Corrosion Methods and

Materials, **16**, No. 10, 16 (1969).

18 **Cyclohexane derivatives as corrosion inhibitors for aluminium—2S in hydrochloric acid** —M. N. Desai and Y. B. Desai, Trans. SAEST, **4**, 71 (1969).

19 **A study of the corrosion of steel with and without protecting agent**—S. A. Balezin, A. N. Bose and C. R. Dass, ibid, **4**, 77 (1969).

20 **Case of dissimilar metal corrosion in bicycle wheels**—A. N. Mukherjee and A. K. Lahiri, ibid, **4**, 40 (1969).

21 **Effects of niobium additions on the machinability, mechanical properties and corrosion behaviour of malleable cast iron**—R. Sharan and coworkers } Trans. Indian Inst. Metals, **22**, No. 2, 47 1969).

22 **Effects of misch metal additions on the machinability, mechanical properties and corrosion behaviour of malleable cast iron**—R. Sharan, J. L. Gaindhar and R. Narayan (ibid, **22**, No. 2, 57, 1969).

23 **Aluminium as a galvanic anode**—N. Subramanyan, M. G. Potdar and A. R. Yamuna, Ind. Eng. Chem., Process Design & Dev., **8**, No. 1. 31 (1969).

24 **Staining and tarnishing of copper by mineral oil rolling lubricants**—N. R. Bharucha and D. Blackburn, Metallurgia, **79**, 133 (1969).

25 **Vapour phase corrosion inhibitors, A. review**—M. N. Desai, G. H. Thanki and M. H. Gandhi, Australasian Corrosion Engineering, **13**, No. 10, 19 (1969).

26 **Stress corrosion cracking**—W. K. Boyd, HTS Digest, **9**, No. 4, 18 (1969).

27 **Evaluation of primer paint by accelerated test**—S. Guruviah and K. S. Rajagopalan, Paintindia, **19**, No. 2, 17 (1969).

28 **N—Substituted anilines as corrosion inhibitors for aluminium—2S in hydrochloric acid** —M. N. Desai and Y. B. Desai, J. Electrochem. Soc. India, **18**, 131 (1969).

29 **"Corrosion in Fertilizer and Petroleum Industry"**, Corrosion Advisory Bureau, CSIR, Jamshedpur, 159 pages.

—T.L.R.

(The Editor will be glad to receive material for the 1970 report).