

SCHEDULE 'A'  
(See Rule 3(i))  
FORM OF APPLICATION FOR REGISTRATION OF SOCIETIES UNDER  
THE KARNATAKA SOCIETIES REGISTRATION ACT, 1960

The Registrar of Societies  
Bangalore Urban District  
Gandhinagar, Bangalore

Dear Sir,

We desire to form ourselves into a Society under the Karnataka Societies Registration Act, 1960 for the purpose of promoting and fostering research in Chemistry and Chemical Sciences. We enclose herewith the Memorandum of Association and the Rules and Regulations of the Society and the original citation for having paid the prescribed fee. We have in other respects complied with the requirements of the Act and the Rules made thereunder. We request that the Society may be registered.

Yours faithfully,

- 1) (C.N.R. Rao)
- 2) (S. Chandrasekaran)
- 3) (T. Ramasami)
- 4) (A.G. Samuelson)
- 5) (V. Krishnan)
- 6) (J. Iqbal)
- 7) (J. Chandrasekhar)



(500) 5000 (10) 1000 1000 (10)

2.80/112/99-99.

Department of Science and  
Department of Biotechnology,  
Central Institute of Science,  
Bangalore - 560 075.

REGISTRATION NO. 100/112/99-99

REGISTRATION DATE: 10/08/2002

REGISTRATION FEE: Rs. 1000/-

REGISTRATION CHARGES: Rs. 1000/-

REGISTRATION TOTAL: Rs. 2000/-

REGISTRATION RECEIVED

10/08/2002

(S. Chandrasekaran)

**Volume 3, No. 2, August, 2002**

**President** G. Mehta; **Founder President** C.N.R. Rao; **Vice-presidents** P.T. Manoharan, A.V. Rama Rao, Harjit Singh, B.M. Deb; **Vice-president/General Secretary** S. Chandrasekaran, V. Krishnan; **Treasurer** T. Ramasami; **Jt. Secretaries** J. Iqbal, E.D. Jemmis, U. Maitra, B.C. Ranu; **Jt. Treasurer** A.G. Samuelson; **Council Members** Y.K. Agrawal, K.K. Banerji, P.K. Bhattacharya, H.M. Chawla, A.C. Dash, S.R. Gadre, A.N. Garg, J. Gopalakrishnan, M.S. Gopinathan, V.D. Gupta, R.V. Hosur, H. Ila, T.S. Lobana, B.B. Lohray, M.K. Mahanti, T. Mukherjee, D. Mukherjee, V. Nair, P. Natarajan, V.S. Parmar, S. Ranganathan, J. Santhanalakshmi, T.K. Sarkar, N. Sathyamurthy, A.K. Singh, S.P. Singh, S. Sivaram, S.K. Srivastava, J.S. Yadav



*From the President's Desk*



Dear Colleagues:

I feel greatly privileged to have the opportunity to serve CRSI as its President and wish to thank you all for reposing your confidence in me. In a short span, our Society has grown in an encouraging manner with nearly five hundred life members and four well attended and stimulating annual symposia, thanks to the vision of our founder President, Professor C.N.R. Rao and the efforts of the office bearers and members of the Council. We need to build upon this solid foundation. I solicit your suggestions to enhance activities of CRSI and to reach out to many more in our fraternity, particularly the young ones.

During the last National Symposium in Chemistry at Pune, a session was devoted to chemical education and this was very well received. A similar event on chemical education is planned for the Fifth National Symposium in Chennai and this activity should evolve into a regular feature of our annual meetings. Two named lectures, one in honour of Prof C.N.R. Rao and the other in the memory of Dr. Darshan Ranganathan have been instituted by the A.V. Rama Rao Research Foundation and Prof S. Ranganathan, respectively, and these will be on the program at Chennai. We are planning to establish local chapters of CRSI and hope to identify a day to be celebrated as the National Chemistry Day.

Every year our Society recognizes individuals for their contributions to chemical research. This year too, several scientists have been selected for the award of Medals of the Society and two senior scientists will be conferred the Life Time Achievement Award. I wish them all further success and luck in their research endeavours.

I very much look forward to seeing you at the 5th National Symposium in Chemistry in Chennai in February, 2003. In the meanwhile, I hope many new chemists will become life members of our Society so that we can become a thousand strong fraternity. I will be looking forward to your support and new ideas.

## Minutes of the Annual General Body Meeting held in Pune

The CRSI Annual General Body Meeting was held on February 2<sup>nd</sup> 2002, at 5.00 p.m. at the auditorium of National Chemical Laboratory, Pune. Around 250 members of the CRSI were present at this meeting. C.N.R. Rao, President, CRSI informed the members of the sad demise of two distinguished members of CRSI - T. R. Govindachari and Darshan Ranganathan. The members observed a minute silence as a mark of respect to the departed souls.

S. Chandrasekaran, Secretary of CRSI welcomed the gathering and presented the activity report of CRSI for the year 2001. He also informed the members of the general body meeting that was held on July 20<sup>th</sup>, 2001 at I.I.Sc, Bangalore where the audited statement of accounts and the report of auditors for the year 2000-2001 were presented by the Joint-treasurer, S. Ramakrishnan.

The members were informed that B.M. Deb, Panjab University Chandigarh, Convenor of the Third National Symposium in Chemistry has handed over a cheque for Rs. 1,58,000 (savings from the Third National Symposium in Chemistry, Chandigarh) as donation to the corpus of CRSI. The members highly appreciated the efforts taken by Deb and his Colleagues in organising an excellent meeting in Chandigarh.

After the introductory remarks by the Secretary, the presentation of CRSI medals was taken up. The CRSI silver medals were presented to S. Mitra, N. Sathyamurthy, E.D. Jemmis, J.C. Ahluwalia, S. Sivaram, H. Ila, S. Chandrasekaran, P.K. Bhattacharya, and K.J. Rao. The CRSI bronze medals were presented to S. Ramakrishnan, T. K. Chakraborty, A. Ajayaghosh, S. Sengupta, B. Viswanathan, P.K. Das, Murali Sastry, D.K. Palit, T. P. Radhakrishnan, V. Chandrasekhar, S. Goswami, T.S. Lobana, P. Ramamurthy, B. Unni Nair and S. Trehan. A certificate and cash award was presented to N.P. Argade for the Best Young researcher in Chemistry from Maharashtra.

The CRSI Gold medals for Lifetime Achievement in Chemical Sciences to R.P. Rastogi, Lucknow and M.V. George, RRL, Trivandrum were presented after their lecture immediately following the general body meeting.



After the presentation of the medals, C.N.R. Rao, President, CRSI discussed various measures to promote and enlarge the activities of CRSI in the coming years. He reemphasized the point that the CRSI should substantially increase the membership in the next couple of years. The items discussed in the Council were taken up in the General Body. The President then announced that the Honorary Fellowships of CRSI for the year 2003 have been conferred on the following distinguished Chemists from abroad - J. Jortner (Israel), J.M. Lehn (France), H. Alper (Canada) and D.A. King (UK).

He mentioned that the 1<sup>st</sup> Darshan Ranganathan medal lecture will be arranged in the next CRSI meeting and the Fifth National Symposium in Chemistry scheduled to be held at the Central Leather Research Institute, Chennai during February 7 - 9, 2003 under the convenorship of T. Ramasami, Director, Central Leather Research Institute. The President also mentioned about another medal lecture to be instituted by A.V. Rama Rao Research Foundation, Hyderabad.

The President informed the members about having local chapters of CRSI in different parts of the country. The modalities of forming the local chapters will be worked out in due course. The President put forth the necessity of celebrating one day in a year as a National Chemistry Day. The local chapters of CRSI as and when they are formed could initiate appropriate programs for celebrating National Chemistry Day in their respective cities.

The President announced the names of members of the Council and new office bearers of CRSI for the period 2002-2004 as approved by the Council. The general body formally approved the list of new Council members/office bearers.

The President and the members thanked S. Sivaram, K.N. Ganesh and their colleagues at National Chemical Laboratory, Pune for the excellent arrangements and organization of the symposium. C.N.R. Rao pointed out that this will be his last meeting as the President of CRSI and that he will be handing over charge to Goverdhan Mehta, Director, IISc who will take over from March 1st 2002 as the President. He thanked the Office bearers, Council members and the members of CRSI for the cooperation extended to him.

V. Krishnan, Secretary, CRSI thanked Prof. Rao for successfully launching the CRSI and for making it a vibrant society to cater to the needs of the chemistry community in this country. He expressed the hope that Prof. Rao would continue to be actively involved in the affairs of CRSI and provide his advice and support in the coming years.

The meeting then ended with a vote of thanks to the Chair.

## Highlights of the 4<sup>th</sup> National Symposium in Chemistry



The 4th National Symposium in Chemistry was organized by the National Chemical Laboratory, Pune and the University of Pune by the conveners S. Sivaram and K.N. Ganesh during 1-3 Feb 2002. With 620 registered participants this is perhaps the largest assembly of chemists in recent years. The symposium started with the Presidential address of C.N.R. Rao, JNCASR, who dwelled on the difficulties involved in raising one's research to the true frontiers. Often the critical measurement that could take a project to a totally new level of excellence is not available in the country so that avoidable collaboration is brought in or the work never attains to the rare heights. There were nine sessions spread over three days. The first session started with a silver lining, in glass research that is, and the shine that K. J. Rao's silver medal lecture brought stayed through out the symposium. S. Mitra followed it with the many model studies on Mo in Biology. Mo showed its versatility again in the disulfide chemistry of sugars, thioglycosides and double cyclodextrin hosts, in the lecture by S. Chandrasekharan. First three of the six lectures in the second session were in theoretical chemistry. Henry F. Schaefer II discussed the structure and energetics of DNA base pairs studied using Density Functional Theory. N. Sathyamurthy took the audience through a historical survey of the development of Quantum Theory of Chemical Reactions through the many examples from his work. The *mno* rule and its applications to Boron, Borides and boranes was the theme of E. D. Jemmis' presentation. J.C. Ahluwalia demonstrated the power of DSC and theoretical studies in understanding the structure and dynamics of proteins. V. Chandrasekhar followed it with the role of stannoxanes and phosphonates in generating clusters of many hues. Tushar Chakraborty took the audience to the world of biochemistry, with the many possibilities available through



the novel amide linked molecular entities. The rigors of afternoon gave way to an enjoyable appreciation of the art and craft of that great humanist of India, Satyajit Ray, presented by B.M. Deb. The second day's programs were organized at three different venues. The third session of the symposium started in the morning at IUCCA, University of Pune with the Dynamics of electron transfer reactions by D.K. Palit. While P.K. Bhattacharya was fascinated by the complexes of ambidentate ligands, H. Ila found her fancy in using chameleons in organic synthesis. T.P. Radhakrishnan dwelled on the design of molecular crystals and thin films for specific properties. The fourth session followed immediately with the lecture of Goswamy on C-N bond formation mediated by metals. Lobana explained the synthesis of mono, di, and tri nuclear complexes while Das followed it with the Dynamics of  $\text{CH}_2\text{ICl}$  dissociation. Chemistry of Al took a new shape in the hands of Roesky.

After a working lunch the delegates moved to the Deccan Gymkhana, the Balgandharva Ranga Mandir, for the special session on Chemical Education (*see picture on page 4*). The theater was full with college students and teachers of chemistry. Professors Gadre, Sen (Acting VC, Uni Pune), C.N.R. Rao, N.S. Narasimhan, P.T. Manoharan, D.V. Prabhu and M.V. Kelkar spoke on various aspects of chemical education. Prof. Rao awarded the best teacher prizes to Anita A. Wagle, P.G. Pol and Sushma T. Joag. Back to NCL, and the 6<sup>th</sup> session started with the annual general body meeting. This was followed by two lifetime achievement award (gold medal) lectures by M.V. George and R.P. Rastogi. George described the many voyages he undertook in pursuit of research and teaching ending with his vibrant and active current results. Rastogi took the audience through Non-equilibrium thermodynamics, Statistical mechanics, explosives research and also challenges in higher education.

On Sunday morning, the micro symposium on Chemical Design of Molecular Materials started with a talk by S. Ramakrishnan



on the use of Raleigh scattering to probe the structure and polymerization of novel surfactant assemblies. This was followed by Murali Sastry's talk on the non-covalent assembly of nanoparticles with biomacromolecules. A. Ajayaghosh then showed how squaraine dyes could be tailor-made to design narrow band gap polymers which absorb in the far IR. T. Pradeep explored nanomaterials from molecular surfaces, while A. Chattopadhyay showed his creation of 2D color patterns in the submicron scale. This session ended with R. Dhamodharan showing nano-polymer brushes attached to surfaces. The eighth session started with a discussion on P450-NO reductase and fatty acid peroxygenase by Y. Shiro. S. Sivaram explained the synthesis and applications of end-functionalized polymers. B. Viswanathan talked about the

potential of nanomaterials in direct methanol fuel cells. S. Trehan probed some asymmetric reactions by experimental and theoretical methods, whereas S. Sengupta showed novel molecular architectures based on the tetraphenylmethane unit. In the last session B. Unni Nair interacted trivalent chromium complexes with genetic materials, while P. Ramamurthy examined photochemical behavior and reactions of bifunctional acridinedione dyes with amines and onium salts.

The large number (about 280) of attractively presented poster session was a special attraction. The quality of the research work was equaled by the enthusiasm of the presenter. There were several prizes for the best presentations. The judges had a tough time selecting the winners; the prizes went to R. Boomishankar (IIT Kanpur), S.J. George (RRL, Trivandrum), V. Kumar (ARDE, Pune), D.S. Reddy (NCL, Pune) and K. Babu (Univ. of Pune).

### CRSI Medalists, 2003

The following are the recipients of CRSI medals 2003 and will be giving lectures in the 5<sup>th</sup> NSC at Chennai. **Lifetime achievement award (Gold medal):** U.R. Ghatak (Kolkata), S.V. Kessar (Chandigarh); **Silver medal:** B. Bagchi (Bangalore), S.S. Krishnamurthy (Bangalore), T. Ramasami (Chennai), J.S. Yadav (Hyderabad); **Bronze Medal:** Pinaki Bandyopadhyay (Siliguri), P.K. Bharadwaj (Kanpur), Aruna Dhathathreyan (Chennai), D. Dhavale (Pune), P. Ghosh (Bhavnagar), G.U. Kulkarni (Bangalore), K.C. Kumaraswamy (Hyderabad), Omprakash (Kurukshetra), P. Pramanik (Kharagpur), D. Ramaiah (Trivandrum), S. J. Reddy (Tirupati), H.B. Singh (Mumbai), R.V. Venkateswaran (Kolkata). A.K. Cheetham (UC, Santa Barbara) will deliver the first Prof. C.N.R. Rao Lecture (instituted by AV Rama Rao Research Foundation, Hyderabad) and K.N. Ganesh (NCL) will deliver the first Darshan Ranganathan Memorial Lecture in Chennai

### About 5<sup>th</sup> National Symposium in Chemistry

The next meeting of the CRSI and the fifth National Symposium in Chemistry will be held in Central Leather Research Institute, Chennai, during February 7-9, 2003. The first circular will soon be available. For further details please contact Dr. T. Ramasami, (Convener, 5<sup>th</sup> NSC), Director, Central Leather Research Institute, Chennai 600 020.

### Announcement

The Chemical Research Society of India now has its own web server at: <http://crsi.org.in>.  
Email: [crsi@crsi.org.in](mailto:crsi@crsi.org.in). PLEASE VISIT US!

### New Membership

For membership applications please write to: Prof. S. Chandrasekaran, Department of Organic Chemistry, Indian Institute of Science, Bangalore 560 012, Tel: 080-394-2404; Fax: 080-360-0529; Email: [crsi@crsi.org.in](mailto:crsi@crsi.org.in), The membership application can also be downloaded (pdf format) from the website. Annual Membership fee Rs. 200, Life membership fee: Rs. 2000.

The Chemical Research Society of India has been granted with effect from 26/01/99 the status of *Wholly Charitable Trust* (certified under section 12A(a) of the Income Tax Act of 1961).

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