



# JILTA

Journal of Indian Leather Technologists' Association

VOLUME : LXXI

NO.:12

DECEMBER' 2020

JILTA 2020  
2021

Rgtn. No. KOL RMS/074/2019-21

Regd. No. ISSN 0019-5738

RNI No. 2839/57

Date of Publication: 6th

₹50.00





# Our Activities

- An Association with over 600 members from India and abroad working since last 70 years for the growth and development of Leather and its allied industries.
- Organize seminars, symposiums, workshops in order to share information, knowledge & latest development and interactions for the benefit of all concerned.
- Organize Human Resource Development programmes on regular basis.
- Publish for over 60 years, a technical monthly journal namely “Journal of Indian Leather Technologists' Association” (JILTA), widely circulated through out the World.
- Publish books for the benefit of the students at various levels of study, for the Research Scholar and the Industry.
- Work as interface between Industry and the Government.
- Assist Planning Commission, various Government Institutions, Ministry and autonomous bodies to formulate appropriate policies for the growth of the Industry.

## Indian Leather Technologists' Association

[A Member Society of International Union of Leather Technologists' and Chemists Societies (IULTCS)]

'Sanjoy Bhavan', 3rd Floor, 44, Shanti Pally, Kolkata- 700 107, WB, India

Phone : 91-33-2441-3429 / 3459 Telefax : 91-33-2441-7320

E-mail : [admin@iltaonleather.org](mailto:admin@iltaonleather.org); [mailtoilta@redimail.com](mailto:mailtoilta@redimail.com)

Website : [www.iltaonleather.org](http://www.iltaonleather.org)

## JOURNAL OF INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION (JILTA)

DECEMBER, 2020

VOL.: LXXI

NO.: 12

RNI NO.: 2839/57

REGD.NO.: ISSN 0019-5738

### Contents

Portfolio.....	03 - 07
STAHL Corner.....	09 - 10
Editorial.....	11 - 12
Solidaridad Corner.....	13 - 14
ILTA News.....	15 - 16
Welcome Address delivered by President, ILTA at the Webinar on "Indian Footwear Industry - Pre Covid and Post Covid and Way Forward".....	17 - 17
Obituary - M. K. Chakroborty.....	18 - 18
ILPA Corner.....	19 - 20
Article -Innovative Ecological Processes with Recovery of Chemicals and Water for Re-use in Leather Sector – An Economical and Sustainable Approach by Dr. S. Rajamani.....	21 - 25
IULTCS Corner.....	26 - 26
Students Corner.....	27 - 29
News Corner.....	30 - 34
CLCTA Corner.....	35 - 36
Down Memory Lane.....	37 - 47
Economic Corner.....	48 - 54

**Hony. Editor :** Dr. Goutam Mukherjee

**Communications to Editor through E-mail :**

admin@iltaonleather.org; jiltaeditor@gmail.com

**Cover Designed & Printed by :**

M/s TAS Associate

11, Priya Nath Dey Lane, Kolkata - 700 036

**Published & Printed by :**

S. D. Set, on behalf of Indian Leather Technologists' Association

**Published from :**

Regd. Office : 'Sanjoy Bhavan', 3rd Floor,  
44, Shanti Pally, Kasba, Kolkata - 700 107

**Printed at :**

M/s TAS Associate

11, Priya Nath Dey Lane, Kolkata - 700 036

**Subscription :**

Annual	Rs.(INR)	400.00
Foreign	\$ (USD)	45.00
Single Copy	Rs.(INR)	50.00
Foreign	\$ (USD)	4.00

**All other business communications should be sent to :**

Indian Leather Technologists' Association

'Sanjoy Bhavan', 3rd floor, 44, Shanti Pally

Kasba, Kolkata - 700 107, WB, India

Phone : 91-33-2441-3429

91-33-2441-3459

E-mail : admin@iltaonleather.org;  
mailto:ilta@rediffmail.com

Web site : [www.iltaonleather.org](http://www.iltaonleather.org)

**Opinions expressed by the authors of contributions published in the Journal are not necessarily those of the Association**

## JOURNAL OF INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION (JILTA)

Indian Leather Technologists' Association is a premier organisation of its kind in India was established in 1950 by Late Prof. B.M.Das. It is a Member Society of International Union of Leather Technologists & Chemists Societies (IULTCS).

The Journal of Indian Leather Technologists' Association (JILTA) is a monthly publication which encapsulates latest state of the art in processing technology of leather and its products, commerce and economics, research & development, news & views of the industry etc. It reaches to the Leather / Footwear Technologists and the decision makers all over the country and overseas.

### Advertisement Tariff

#### Full Page / per month

Black & White	Rs. 5,000.00/-
Colour (full page)	Rs. 10,000.00/-
Colour Insert (One side) (Provided by the Advertisers)	Rs. 5,000.00/-

#### Full Page / per annum

Front inside (2 <sup>nd</sup> Cover)	Rs. 96,000/-
3 <sup>rd</sup> Cover	Rs. 84,000/-
Back Cover	Rs. 1,20,000/-

### Mechanical Specification

Overall size	: 27 cm X 21 cm
Print area	: 25 cm X 17 cm

Payment should be made by A/c. Payee Cheque to be drawn in favour of :

**Indian Leather Technologists' Association**  
and Payable at **Kolkata**

*Send your enquiries to :*

**Indian Leather Technologists' Association**  
'SANJOY BHAVAN'  
3rd floor, 44, Shanti Pally, Kasba, Kolkata – 700 107  
Phone : 91-33-24413429 / 91-33-24413459  
E-mail : admin@iltaonleather.org / mailto:ilta@rediffmail.com  
Website : [www.iltaonleather.org](http://www.iltaonleather.org)

## INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION

(Member Society of International Union of Leather Technologists and Chemists Societies)

### Executive Committee (2019-21)

#### Central Committee

President : Mr. Arnab Jha

Vice-Presidents : Mr. Asit Baran Kanungo  
Dr. K. J. Sreeram  
Mr. P. K. Bhattacharyya

General Secretary : Mr. Susanta Mallick

Joint Secretaries : Mr. Shiladitya Deb Choudhury  
Mr. Bibhas Chandra Jana

Treasurer : Mr. Kaushik Bhuiyan

Committee Members :

Mr. Jayanta Chaudhury  
Mr. Pradipta Konar  
Mr. Subir Datta  
Mr. Aniruddha De  
Mr. Ratan Chowdhury  
Mr. Kunal Naskar  
Mr. Alokesh Ray  
Mr. Sudagar Lal  
(Secretary of Northern Region)  
Dr. R. Mohan  
(Secretary of Southern Region)

Ex-Officio Member : Dr. Goutam Mukherjee

#### Regional Committees

##### Southern Region :

President : Mr. N. R. Jagannathan

Vice-President : Dr. J. Raghava Rao

Secretary : Dr. R. Mohan

Treasurer : Dr. Swarna V Kanth

Committee Members :

Dr. N. Nishad Fathima  
Dr. P. Thanikaivelan  
Dr. Subhendu Chakrabarti  
Dr. S. V. Srinivasan

##### Northern / Western Region :

President : Mr. Jai Prakash Saraswat

Vice-President : Mr. Rajeev Mehta

Secretary : Mr. Sudagar Lal

Treasurer : Mr. Jaswinder Singh Saini

Committee Members:

Mr. Kamal Sharma  
Mr. Mohinder Lal  
Mr. Rajveer Verma  
Mrs. Sunita Devi Parmar  
Mr. Y. D. Mahajan

## **INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION**

(Member Society of International Union of Leather Technologists and Chemists Societies)

---

### **Various Sub-Committees of ILTA**

**1) HRD Sub-Committee :-**

Co-Ordinator : Mr. Ratan Chowdhury

**2) Seminar Sub-Committee :-**

Co-Ordinator : Mr. Subir Datta

**3) Regional Activities Sub-Committee :-**

Co-Ordinator : Mr. Pradipta Konar (Northern Region)  
Mr. Jayanta Chaudhuri (Southern Region)

**4) Membership Sub-Committee :-**

Co-Ordinator : Mr. Shiladitya Debchoudhury  
Mr. Bibhas Chandra Jana

**5) Welfare Sub-Committee :-**

Co-Ordinator : Mr. Kaushik Bhuiyan  
Mr. Jiban Dasgupta

**6) LEXPO Sub-Committee :-**

Co-Ordinator : Mr. Asit Baran Kanungo  
Mr. Susanta Mallick

**7) Placement Sub-Committee :-**

Co-Ordinator : Mr. Kunal Naskar

**8) Estate Management Sub-Committee :-**

Co-Ordinator : Mr. Bibhas Chandra Jana  
Mr. Kaushik Bhuiyan

**9) Documentation & Filing Sub-Committee :-**

Co-Ordinator : Mr. Subir Datta  
Mr. Kaushik Bhuiyan

---

# JOURNAL OF INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION (JILTA)

## EDITORIAL BOARD OF JILTA

<b>Chief Patron</b>	:	Dr. T. Ramasami
<b>Advisers</b>	:	Prof. Dr. A. B. Mandal Mrs. Antara Kumar Dr. Bi Shi Dr. B. N. Das Dr. Buddhadeb Chattopadhyay Dr. Campbell Page Dr. Carlo Milone Dr. Chandan Rajkhowa Mr. E. Devender Dr. Pisi Dr. Roberto Vago Dr. Samir Dasgupta Prof. Swapan Kumar Basu Mr. Suparno Moitra Dr. Subha Ganguly Dr. Tim Amos Dr. Tapas Gupta
<b>Peer Reviewing Committee :</b>		Prof. A. K. Mishra Mr. Abhijit Dutta Mr. Animesh Chatterjee Dr. B. Chandrasekharan Mr. Diganta Ghosh Dr. J. Raghava Rao Mr. Jayanta Chaudhuri Dr. N. K. Chandrababu Mr. Prasanta Kumar Bhattacharyya Dr. Subhendu Chakrabarti Mr. Satya Narayan Maitra
<b>Hony Editor</b>	:	Dr. Goutam Mukherjee
<b>Joint Editors</b>	:	Dr. Sanjoy Chakraborty Dr. Anjan Biswas







# Igniting the age of Responsible Chemistry



Responsible  
Chemistry

Stahl is committed to its leading role in rethinking, reimagining and rewiring our ways of producing, innovating and developing chemistry. With Responsible Chemistry, we can make a difference throughout the supply chain of the industries we serve.

[responsiblechemistry.stahl.com](https://responsiblechemistry.stahl.com)



## We imagine sustainable solutions for the beamhouse and tanning process

Stahl BeTan®



Tanners are facing growing environmental challenges as the market increasingly demands that high-quality leathers are produced more responsibly. Contributing to a more ecological leather production process, our responsible beamhouse portfolio helps tanners meet these challenges without compromising on the quality of the leather.

The Stahl BeTan® portfolio consists of a complete range of responsible solutions for every step in the beam house and tanning process, from soaking to liming and bating. Using the best-in-class responsible technologies from the Stahl BeTan® portfolio, tanners can reduce their water consumption and the amount of sulfides, solids and salt used during leather production.

Moreover, it can result in a shorter production process. Building on years of experience in beam house operations and acquiring the best technical experts in the world, Stahl has become the go-to partner when it comes to sustainable beam house and tanning solutions. Our Stahl BeTan® solutions demonstrate Stahl's continuous commitment to Responsible Chemistry, aimed at reducing the environmental impact of leather-making.

If you would like to know more about Stahl BeTan®, and what we can do for your business, visit [stahl.com](https://stahl.com) or contact [david.sabate@stahl.com](mailto:david.sabate@stahl.com)

[stahl.com](https://stahl.com)



# Forwards Banking Guidance



Bankers do not have an easy job at the best of times. They have to work in a world of constant yet random shocks, imperfect models and multifarious pressures, while trying to hit a moving inflationary target six months to a year down the line. All of this while working with a rather limited arsenal. Since 2008, central banks (CB) have used the interest rate as the primary tool to influence economic policy. Interest rates have approached, or in some cases even exceeded, the zero lower bound, with no sign of definite recovery. Drastic times call for drastic measures and central bankers have resorted to so-called unconventional monetary policy in order to provide additional monetary accommodation as a last resort. One such unconventional method termed “forward guidance” has been employed in one form or another by CBs around the world.

Forward guidance (FG) is the practice of providing long-term forecasts for future interest rates. It is a method by which CBs can avoid excessive market volatility. It provides investors with a glimpse into what is referred to as the CB’s “reaction function”. In other words, “how will the CBs policy instrument respond to macroeconomic conditions?” This reduces investor uncertainty, thereby decreasing the number of assets investors have to keep in order to compensate for that uncertainty. In theory, these excess funds can be used instead on other economic activities that should stimulate the economy. The term forward guidance can technically be applied to any form of information regarding the future utilization of monetary policy instruments. The most common example of FG concerns the policy rate, also known as the short-term interest rate. There are many different forms of this type of FG, however they generally can be separated into two broad categories that have their origins in Greek mythology. The first type of FG is known as Delphic FG, named after the oracle at Delphi. Just like the oracle, Delphic FG is a prognostic gesture made by CBs regarding the future state of the policy rates over a non-specific time frame. This

form of FG was practiced by the Reserve Bank of New Zealand in the late 1990s as well as by Norges Bank during the early 2000s. A present-day example of this is the European Central Bank’s usage of the term “extended period of time” to describe the non-specific time frame.

A second type of forward guidance, dubbed Odyssean FG, is conditionally contingent or data dependent on macroeconomic variables such as unemployment or inflation. This form of FG is well-known in the post-crisis world. Examples include the United States Federal Reserve Bank’s goal of 6% unemployment and 2% inflation, or the Bank of England’s adoption of a similar FG model aiming at 7% unemployment. This state-dependent guidance predicates a tangible commitment by the central bank to hold rates low for a given time. This commitment is akin to Odysseus’ actions as he and his crew sailed by the Island of the Sirens in Homer’s ancient Greek epic poem *The Odyssey*. Just as Odysseus resisted the tantalizing song of the Sirens, so too must the CBs resist the temptation to raise rates no matter how tempting it may be. Even in the face of uncomfortably high inflation, like Odysseus, the CB is tied to the mast and will sail through monetarily accommodative seas until it arrives at its destination—hence the name Odyssean FG.

However, there are problems with Odyssean data-dependent FG. Firstly, data may not accurately represent the situation. Secondly, assumptions about measurements such as the natural rate of employment are fragile at best. This is why CBs cleverly include escape clauses in their statements giving them flexibility even though their stipulations for rate increases have been met. For FG to have a positive impact it must be believable, communicated unambiguously and interpreted with the original intentions of the CB. The first point usually takes care of itself: if the CB goes back on its commitment once, it will be hard to regain the public’s confidence regarding future promises. The effectiveness of FG can also be lessened depending on how it



is interpreted by the public. For example, upon hearing that policy will be accommodative for a long time, the public may take it as a signal of the severity of the negative outlook. This can further constrict the economy—the opposite of what the bank intended. Further complications can arise from the mechanics of the CB's decision: Was the decision made by many voters on the CB's board? Was it unanimous? Are there many dissenting opinions? These factors will undoubtedly impact the public's reaction to rate forecasts.

There is a consensus that FG has indeed decreased uncertainty over the future path of rates, although this is hard to quantify since its effect is confounded by other factors. A number of studies have been released that have attempted to quantify the effect that FG has had in different national economies. The challenge many of these studies faced was how to separate the effect of FG announcements from other policy actions or news issued at the same time. For example, the U.S. Federal Reserve announced the next phase in its large-scale asset purchases program along with information about future federal funds rate paths in the same meeting statements. Other confounding factors, such as delayed effects, or action taken in anticipation of the announcement, make it difficult to identify the effects.

There are others who may agree that FG is useful at the lower bound to stimulate the economy further. However, continued

FG usage when rates are high may cause more volatility. The governor of the Bank of Canada has made this point, explaining that during normal times FG should be avoided as it shifts too much of the interpretation of new information to the Bank, as opposed to letting markets conduct their own assessments. It is valuable to have markets that are able to cope with a degree of uncertainty. Last year, after the Fed's communication concerning the tapering of the asset purchasing and the gradual raising of rates, many emerging markets witnessed large-scale bond sell offs. A resulting foreign exchange market crisis followed. It could be argued that this is a result of the volatility caused by FG. CBs have gone from being inscrutable in the past to being relatively transparent today. They publish minutes of their policy meetings and give out as much information as possible to the public. This has allowed the public to form their own expectations about the future of inflation and policy. FG is one such tool that can affect expectations. The role of the public's perceptions regarding monetary policy has been evolving ever since the discovery of the Philips curve. Policy tools such as forward guidance, will continue to evolve alongside with it.

*Goutam Mukherjee*

**Dr. Goutam Mukherjee**  
Hony. Editor, JILTA

---

*Read and Let Read :-*

JILTA

## Solidaridad ASIA

Solidaridad Network is a global civil society organization providing efficient, scalable and economically effective and innovative sustainability solutions in various agricultural and industrial commodities such as:



Solidaridad Asia has more than 320 sustainability experts operating from 26 offices in 9 countries and has also pioneered development and implementation of national sustainability standards in the region.

Solidaridad initiated its efforts in the leather cluster in late 2017 with the Kanpur-Unnao leather cluster. Within 2 years of inception, we have started our efforts in Kolkata and Bangladesh Leather clusters. Through tailor-made programs, Solidaridad has tried to address the following components:

### KEY COMPONENTS



### SUSTAINABLE WAY FORWARD IN THE LEATHER CLUSTERS ACROSS INDIA





## Solidaridad ASIA



Solidaridad celebrating its 50th year anniversary in The Netherlands



Capacity building workshops of tannery personnels



Tannery workers using desalting machine to remove salt from hides



OHS workshop conducted by experts for awareness creation and risk mitigation of toxic H<sub>2</sub>S gases



Ministry of The Netherlands acknowledged Solidaridad's contribution to leather sector in India at Indo-Dutch forum



Launch Meeting of Solidaridad's project for pollution prevention in tanneries in Kanpur

**Tatheer Raza Zaidi, Senior Program Manager- Leather:** [tatheer.zaidi@solidaridadnetwork.org](mailto:tatheer.zaidi@solidaridadnetwork.org)  
**Solidaridad Network Asia Limited**  
 A-5, 1st Floor, Shankar Garden, Main Najafgarh Road, Vikas Puri, New Delhi – 110018  
 Contact: 011-45134500, +91-9818311450



## *From the desk of* General Secretary



### SEMINAR ORGANIZED BY ILTA



A Seminar on the topic “Indian Footwear Industry : Pre-Covid and Post-Covid and Way Forward” was organized by our association as an initiative of ILTA HRD Committee on 1<sup>st</sup> December’ 2020, at 7.00 pm on digital platform.

The program resumed with the introductory speech delivered by Mr. Susanta Mallick, General Secretary, ILTA, followed by the Welcome Address delivered by Mr. Arnab Jha, President ILTA.

In his address Mr. Jha briefed about the status and volume of business of Indian Leather Footwear Industry in pre-covid period. He also explained that how the covid situation have affected the industry and suggested some way outs during post-covid period. His address is presented following this ILTA News.

Mr. Mallick then introduced the honorable speaker of the day, Mr. P. R. Aqeel Ahmed, Chairman, Council for Leather Export & Leather Sector Skill Council and called on him for his deliberation.

Mr. Ahmed then delivered the highly informative and suggestive lecture on the topic “Indian Footwear Industry : Pre-Covid and Post-Covid and Way Forward”. He informed that how different Associations / Organizations with the help of Government are working for recovering the post-covid situation of Indian Leather Footwear Industry. He expressed his hope that the situation

could be improved by proper implementation of sustainable technology, highly productive & efficient modern machineries and deputation of skilled worker & labors.

After conclusion of his lecture Mr. Ahmed responded a lot of queries of the participants from Industry, Institute, Associations & Organizations.

The programme came to an end with offering Vote of Thanks by Mr. Ratan Chowdhuri, Coordinator, HRD Committee of ILTA. He offered his sincere thanks to the Speaker of the day, President & General Secretary of our association, Members of our association and all the participants.

There were around 100 participants over Zoom platform and more than 100 viewers have participated on the ILTA HR Face Book Live.

This video recording of the entire program is also available on the official Youtube channel of ILTA (**ILTA Online**) and the website of the Association – [www.iltaonleather.org](http://www.iltaonleather.org)

### 62<sup>nd</sup> ANNUAL GENERAL MEETING

The 62<sup>nd</sup> Annual General Meeting of ILTA was organized on 24<sup>th</sup> December, 2020 at 03.00 PM IST (Registration from 2.30 pm IST) on Zoom Cloud app.

The Printed Annual Report & Audited Accounts for 2019-20, Notice of the 62<sup>nd</sup> AGM and Proceedings of the last i.e. 61<sup>st</sup> AGM was posted for the members through Indian Post on 1<sup>st</sup> December’ 2020 and was also sent the soft copy of the same via email on 2<sup>nd</sup> December, 2020 subsequently.

The Meeting Link, Id & Passcode for joining the meeting was sent separately via a letter Ref. No.- ILTA/AGM/17/2020-21/067, Dated- 10/12/2020 and also by email.

### **BEREAVEMENT**

With profound grief and a heavy heart we announce the sad demise of Mrinal Kanti Chakraborty, a Senior Life Member of our Association on 12<sup>th</sup> December, 2020.

May his soul rest in peace and may God give strength to the members of the bereaved family to bear this irreparable loss.

### **YOUTUBE CHANNEL OF ILTA**

An official **YouTube** Channel of our Association (**ILTA Online**) has been launched from 1<sup>st</sup> November' 2020. You may follow and view all the video recording of different Seminar & Symposiums on this channel by opening it time to time.

You are requested to kindly do 'Like' the channel and 'Subscribe' it by pressing the Bell Icon beside it to get regular updates on priority basis.

### **PUBLISH YOUR TECHNICAL ARTICLE**

Faculties, Research Scholars and students of various Leather Institutes may wish to publish their Research / Project papers in an Article form in this monthly technical journal, JILTA.

Interested author may sent their paper (in MS Word format) along with a PP Photograph and Contact details like Email, Mobile etc. to our email IDs : [admin@iltaonleather.org](mailto:admin@iltaonleather.org) / [jiltaeditor@gmail.com](mailto:jiltaeditor@gmail.com)

### **Members are requested to :-**

- a) Kindly inform us your '**E-Mail ID**', '**Mobile No**', '**Land Line No**', through E-Mail ID: [admin@iltaonleather.org](mailto:admin@iltaonleather.org) or over Telephone Nos. : 24413429 / 3459. This will help us to communicate you directly without help of any outsiders like Postal Department / Courier etc.
- b) Kindly mention your **Membership No.** (If any) against your each and every communication, so that we can locate you easily in our record.

*WE ARE SORRY TO STATE THAT, DUE TO SOME UNAVOIDABLE CIRCUMSTANCES, THIS ISSUE OF JILTA (DECEMBER' 2020) COULDN'T BE PUBLISHED WITHIN THE STIPULATED TIME. INCONVENIENCES CAUSED IS REGRETTED.*

  
(Susanta Mallick)

**General Secretary and the Members of the Executive Committee are available to interact with members at 19.30 hrs, over Phone / Conference call on every Thursday**

## Welcome Address delivered by President, ILTA at the Webinar on “Indian Footwear Industry - Pre Covid and Post Covid and Way Forward” on 1st December, 2020



Good Evening!

Mr. Susanta Mallick, General Secretary, ILTA; Mr. Ratan Chowdhury, Coordinator, HRD, Mr. P. R. Aqeel Ahmed, Chairman, Council for Leather Exports and skill COUNCIL and the Honbl'e Speaker, Members, Colleagues, Students, Friends from Industry and other Participants; - I, on behalf of ILTA welcome you all to join the webinar titled **“INDIAN FOOTWEAR INDUSTRY – Pre COVID and Post COVID and way forward”**.

The Footwear Industry in India was doing remarkable business with continuous growth. We are the second largest Footwear manufacturer and market absorbing large no. of workmen (400 PER 1000 pair approximately), technical intellectuals. The overall leather industry is marked as FOCUS Industry, being one of the largest foreign EXCHANGE EARNER. But COVID 19 has sent the industry off track.

Country's business almost became disrupted due to weaker consumer sentiment, closure of shops, depleting consumer's income and consequently drops in revenue. Flight of labour is another factor that has / will affect the production. Some corners assume that normalcy will come from AW21 onwards.

We have to convert all operations perfect, increase our efficiencies, specially increase in productivity, reduce cost, on time delivery, reduce lead time etc. We have to produce sustainable products and tune better every day to become more competitive than others.

We, along with our CLE expect India to pick up the Footwear exports once the CORONAVIRUS Pandemic settles down.

It is at this juncture, on 11<sup>th</sup> September, 2020, Dept. for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Govt. of India has established the “Development Council for Footwear and Leather Industry” comprising of 25 persons, having Chairman, and one Member - Secretary and 23 members covering all related departments for two years.

Apart from the above it is assumed that with US Chinese relation tensed, the footwear and Indian shoe market may have share in US market. Imposing Anti dumping duty on Chinese Footwear is of another positive effect.

India will remain rich in resources with ample of Raw material and huge human resources. Our workforces are compared to costly minerals. They need to be properly cleaned and purified. So, in spite of comment by Noble Lauriet, Joseph STIGLITZ on post COVID19 economy that during the pandemic, big tech will only get bigger, we feel that if properly nurtured, we may prove that as JAPAN GOT BACK after devastation, we may become a great power.

Anyway, we have today a leader of the Industry Mr. Aqeel Ahmed with us and we will learn that how to come back with double strength. Our special thanks to him to spare valuable time to us for agreeing to deliver lecture.

With this I once again welcome you all.



(Arnab Jha)  
President, ILTA





### **Late Mrinal Kanti Chakraborty**

(11<sup>th</sup> February' 1950 – 12<sup>th</sup> December' 2020)

Late Mrinal Kanti Chakraborty a Sr. Life Member of our Association passed B. Tech in Leather Technology from College of Leather Technology, Kolkata in year 1971. After passing out, he joined in a leather company at Chennai, where he worked for first two years of his career. He started consultancy thereafter.

He joined West Bengal State Leather in the year 1977. Later he joined as Director of Central Footwear Training Center, Budge Budge in 1996, from where he took retirement in year 2010.

As the Sr. Life Member of our Association, Late Mrinal Kanti Chakraborty was actively involved in all the activities of our Association from 1970 to 2015.

Apart from our association he was also an active member of FOSET and a Founder member of 'Shiksharthi Parishad' an NGO. He was well known to all the members, academic institutes, people of the industry & several departments of the Govt. of West Bengal.

Since the days of our Association struggled for its survival, he worked with dedication and devotion for achieving its current position. He was one of the pillars behind establishment of LEXPO, a leather trade fair as a remarkable event and building up our 6 storied own premises through earning from this event.

He was the person who convinced Mr. Buddhadeb Bhattacharjee, the then Minister of Information & Culture, Govt. of West Bengal for giving us the land for our present own office building at a highly subsidized cost in this prime place.

In short he was a man of dedication, devotion and determination who worked for this Association till he was fit physically.

He left for his heavenly abode on Saturday the 12<sup>th</sup> December, 2020. We pray to the Almighty for his soul to Rest in Peace and give enough strength to bear this irreparable loss to his family, the leather fraternity as well as to our Association.

=====

## INDIAN LEATHER PRODUCTS ASSOCIATION

The Indian Leather Products Association (ILPA), established in 1987, is a premiere representative body of manufacturer-exporters of superior quality leather and leather products with head office in Kolkata and a regional office in Chennai.

### IMPORTANT ACTIVITIES OF ILPA :

- Brings together manufacturer & merchant exporters on a common platform.
- Stimulates growth & development of the industry as a whole.
- Promotes export of leather & leather products.
- Develops & maintains symbiotic liaison with international trade bodies & Chambers of Commerce.
- Organises trade delegations to international fairs & seminars.
- Organises various Seminars/workshops both the benefit of its members and industry.
- Promotes International Fairs and RBSMs like IILF Kolkata, ILPA Buyer Seller Summit.
- Organises the ILPA SHOW : Leather on the Ramp , one of the most prestigious and sought after Fashion event in Eastern India.
- Closely involved in setting up the Calcutta Leather Complex (CLC).
- Runs and manages the Freya Design Studio : a CLE award winning Design Studio both for leather goods and footwear.
- Runs and manages the ILPA INFRASTRUCTURE DEVELOPMENT FOUNDATION (IIDF) – a state of the art Common Facility Centre.
- Imparts Skill Development Training through ILPA Technical School.



Common Facility Center



Design Studio



CAD CAM Center



ILPA Technical School



**Indian Leather Products Association**  
Plot no 1647, Zone 9, Calcutta Leather Complex,  
Karaidanga, West Bengal, Pin Code: 743502  
Mobile: +91 7605855567 / +91 9007881474  
E-Mail : mail@ilpaindia.org  
Web: www.ilpaindia.org



Come and visit  
the world's best  
leather goods  
sourcing platform  
in India

**ILPA  
BSS**  
BUYER SELLER SUMMIT 2019  
KOLKATA

28th & 29th January 2021  
in a centrally located  
world class luxury hotel – ITC Sonar.

**Reasons to visit:**

- 42 major leather goods companies displaying their latest & best quality International collections under one roof!
- This part of India is the world's most competitively priced leather goods production hub!
- Golden chance to source premium best priced leather goods at one go!

**Special Offers for Visitors:**

- Facility to stay in the same hotel at discounted rate if confirmed before 30th September 2020
- Pick up & Drop facility from Airport
- Complimentary Language interpretation service
- Complimentary lunch & refreshments
- Option for factory visit of participant companies

**Products on Display:**

Ladies Hand Bags, & Purses, Men's Bag & Wallets, Belts, Hand Gloves (Fashion & Industrial), Garments, Luggage & Holdalls, Portfolio, laptop bags, iPod Covers, small leather goods & Accessories




**BSS**  
**ILPA BUYER SELLER SUMMIT**  
**KOLKATA**  
28th & 29th January 2021



A highly focused B2B event  
featuring leather goods  
that brings together international  
Buyers & Sellers.

Indian Leather Products Association  
[www.ilpaIndia.org](http://www.ilpaIndia.org)

**BSS**

**Indian Leather Products Association**  
**BUYER SELLER SUMMIT 2021. KOLKATA**



# INNOVATIVE ECOLOGICAL PROCESSES WITH RECOVERY OF CHEMICALS AND WATER FOR REUSE IN LEATHER SECTOR – AN ECONOMICAL AND SUSTAINABLE APPROACH

**Dr. S. Rajamani**

Chairman, ASIAN International Union of Environment Commission (AIUE)



## ABSTRACT

The effluent discharged from conventional process in textile dyeing and tanneries are unable to meet some of the discharge parameters such as Total Dissolved Solids (TDS) in the existing physiochemical & biological treatment units. In addition to TDS management the control of volatile solids in hazardous category sludge is also becoming a necessity.

To overcome these challenges faced by tanneries in the world leather, improved cleaner production, segregation of saline soak liquor and separate treatment, modified chrome recovery system and recovery of chromium & sodium chloride salt in the form of powder and quality water with TDS less than 500mg/l for reuse by tanneries have been developed for field application.

Physiochemical treatment is converted into total biological treatment with sulphide oxidation using enzyme and biomass which resulted in 50% reduction in sludge generation.

The secondary treated effluent and supernatant from chrome recovery system are processed with membrane units for recovery of high saline stream and quality salt for reuse in pickling process and other industrial requirement. These developments are being implemented at field level for cluster of nearly 400 tanneries in India which is first of its kind in the world.

*Key words : Cleaner production, Water & Chrome recovery, TDS control*

## 1. Introduction

The tanneries in World Leather Sector process about 17 million tones of hides & skins per year. Only less than 20% of fresh hides and skins are processed without applying salt and more

than 8-10million tones of salt mainly in the form of sodium chloride is applied for curing. They are transported, stored and processed in a period of 2-6 months. The entire salt applied is discharged as waste in the effluent as dissolved solids, causes environmental challenges due to increase in salinity, depletion of quality water resources and transfer of non-degradable pollutants such as salt from one region to other region in the world.

With a view address the environmental challenges, technological developments such as (i) Advanced process control and cleaner production, (ii) Segregation of Spent chrome stream and adoption of improved chrome recovery system by recovering chromium in the form of cake and power, (iii) Segregation of saline stream with high TDS around 20000-30000mg/L from soak liquor, separate treatment and recovery of quality salt and water for reuse by adopting ZLD system, (iv) Improved biological treatment system with mild chemical usage for reduced sludge generation, (iv) Advanced tertiary treatment system for the application of Reverse Osmosis (RO) system for recovery of water. Recent applied R&D on the sustainable development in cleaner leather production, environmental protection techniques with focus on saving of energy and chemical by converting the physiochemical treatment into total biological treatment, water-recovery for reuse, quality salt recovery for reuse, etc. are explained in this paper.

## 2. Separate Treantent of Soak Stream for Recovery of Quality Salt and Water

Due to inherent quality of industrial wastewater such as textile dyeing units, tanneries etc., the conventional treatment plants are unable to meet the prescribed TDS level of 2100 mg/l in the treated effluent. In addition to TDS management the control of volatile solids in hazardous category sludge is also becoming a necessity. For control of salinity, sludge and viable

management of TDS with recovery of quality water and salt from wastewater, the required treatment steps are (i) Cleaner production and other viable process control in tanneries, (ii) Segregation of saline soak liquor, spent chrome liquor for separate treatment, (iii) Improved two stage biological treatment systems with better efficiency in BOD and COD removal, (iv) Minimum usage of chemicals in the treatment process and reduction in sludge generation, (v) Reduction in TDS level in the mixed stream and (vi) Tertiary treatment of the low saline mixed stream and integration of treated tannery effluent with treated domestic sewage wherever feasible for TDS management.

The availability of domestic sewage is limited in many locations for dilution/mixing with treated tannery effluent for TDS management. The viable plan of segregation of soak liquor, separate treatment and recovery of quality salt will be helpful in reduce the TDS level in the mixed stream and scope for adoption of dilution / mixing with available treated domestic sewage.

The segregated soak liquor generated from presoaking and main soaking is taken to the CETPs through separate pipe line and after primary and secondary treatment units, membrane system is adopted for recovery of water and quality of saline stream for reuse in pickling. The balance treated saline stream is evaporated in the multiple effect evaporator and quality salt (98% purity) is recovered for reuse without any difficulty. In addition to recovery and reuse of quality water by the industry, the additional benefits are savings in chemical usage in the tanning process and reduction in pollution load in the effluent.

The segregated chrome stream is taken for Centralized Chrome Recovery System (CCRS) for recovery of chromium in the form of chromium cake. In the improved chrome recovery system, the time required in the chrome recovery process is reduced from 16 hrs to less than 8 hrs. By avoiding the soak stream and supernatant from the CCRS to the main composite stream, the TDS level will be reduced from the level of about 15000mg/l to 8000mg/l.

### 3. Improved Common Chrome Recovery System

The basic concept, design and development of improved Common Chrome Recovery System (CCRS) comprises of the following:

- Segregation of spent chrome liquor and collection in separate tank, transportation through tankers mounted on trucks with GPS and vacuum pumps
- Separate collection tanks with screen chamber near CCRS for discharge of spent chrome liquor from the tankers
- Transfer of spent chrome liquor from the collection tank by pumping to the main reactor for chrome precipitation by using suitable Alkali chemical dosing
- Decanting of supernatant, clarification and distribute in tanneries for pickling with alternative option of recovery of water using UF&RO units installed for saline soak treatment system and recovery of reusable salt using the MEE system
- Dewatering of Chromium Hydroxide slurry and making it in the form of cake and powder. Further process of making chromium cake/powder in to Basic Chromium Sulphate (BCS) for reuse in tanneries.

The process flow diagram of segregation and collection of three streams viz. (i) Saline Soak liquor, (ii) Spent Chrome liquor and (ii) Composite stream with low TDS and separate treatment is shown below:

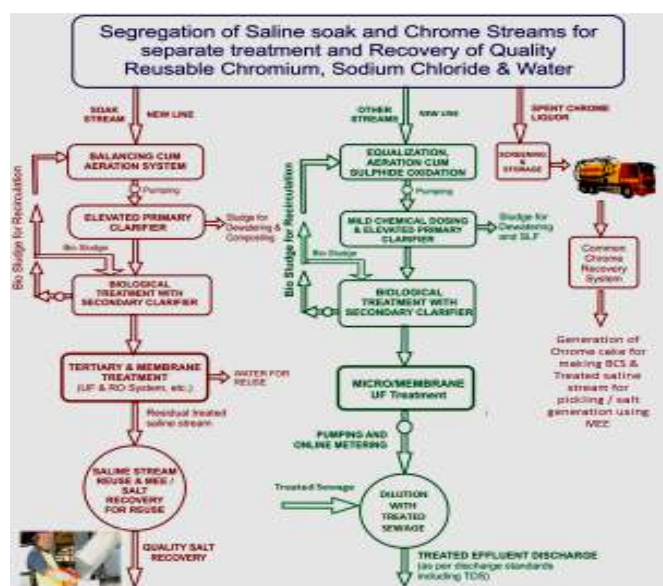


Fig.1 : Treatment process of Soak saline, Spent chrome and Composite low saline streams

### 3.1 Chrome precipitation in main reactor using suitable Alkali chemical

The equalized spent chrome liquor from the collection tank is pumped to the Reaction tank, provided with a slow speed agitator. The alkali solution shall be prepared in the Alkali preparation tank by mixing alkali and water. The Alkali dosing feed pump shall draw the Alkali solution from the alkali preparation tank to the Reaction tank.

The alkali dosage is regulated by the pH analyzer/transmitter with integrated controller installed in the Reaction tank. Depending on the pH value in the reaction tank the Alkali solution feed pump speed will be varied to control the reaction. The agitator in the Reaction tank will ensure the proper mixing of the spent chrome liquor and the alkali solution. The chromium present in the chrome liquor will be quantitatively precipitated as chromium hydroxide by increasing the pH.

The Chemical reaction of a typical chrome recovery process is:  

$$\text{Cr}_2(\text{SO}_4)_3 + 6\text{NaOH} \rightarrow 2\text{Cr}(\text{OH})_3 + 3\text{Na}_2\text{SO}_4$$

### 3.2 Separation of Chrome slurry and Supernatant from the Main reactor

In about 3-4 hours the chromium precipitates and settles as chromium hydroxide slurry in the bottom of the main reactor. The supernatants account for about 70 to 80% of the volume in the Reaction tank. After settling the chrome slurry has to be separated from supernatant by decanting the supernatant by providing proper arrangement. Chrome slurry from the bottom of the reaction tank shall be discharged by gravity into the collection tank in the form of chromium hydroxide.

### 3.3 Dewatering of Chromium Hydroxide slurry & making it in the form of cake

A series of Filter press with feed tank shall be provided to dewater the chromium hydroxide slurry and convert into chromium hydroxide cake. The solid concentration of the chromium hydroxide cake shall be about 30%. An agitator shall be provided in the each of the filter press feed tank for proper feed in to the filter press. The Filter press feed pump shall draw the chrome hydroxide precipitate from the filter press feed tank and pump it to the filter press. The water passes through the filter clothes

and chromium hydroxide is retained. This shall be repeated till the filtration cycle is completed. The filtrate is collected in the supernatant collection tank and then taken for further process and reuse.

At the end of the filtration cycle, the filter press is opened and chromium hydroxide cake is collected in a separate tray, shifted to storage yard to be provided adjacent to CCRS and kept for further dry and stored in anticorrosive polythene bags. The chromium hydroxide cake is further processed by authorized vendors / BCS manufacturers and reused in the member industries for recycle.

The overall schematic diagram of the improved chrome recovery system is given below:

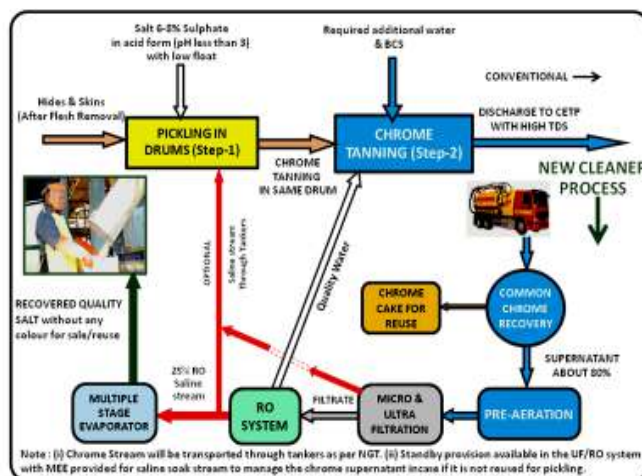


Fig. 2 : Chrome Stream Treatment, Recovery & Reuse

### 4. Integration of equalization cum mixing system with biological treatment for sulphide oxidation

The effluent is collected in equalization cum mixing system, pumped to the primary clarifier, mixed with high dosing of chemicals such as lime alum, etc. The conventional system adopted in most of the CETPs in India could not reduce the sulphide level in the physiochemical treatment and the sludge accumulation in the equalization tank is one of the major problems. The COD reduction to the prescribed level (i.e. 250mg/l) in the final treated effluent could not be met by some of the CETPs adopting conventional physiochemical and biological treatment. The performances of the aerobic biological treatment system with limited detention time are not satisfactory and unable to produce required quality effluent.



With a view to oxidize the sulphide present in the effluent, control the sludge settling in the equalization tank and to minimize the chemical usage the equalization system has been upgraded with increased detention time, increased depth and usage of new type of aspirators integrated with compressor. The residual excess biosludge from secondary clarifier is pumped to the equalization tank which is helpful in biological oxidation process and to reduce the chemical dosage in the first stage clarifier.

The primary clarifier units are also upgraded by providing elevated clarifiers with minimum required chemical dosing. This improved system is performing better in terms of sludge settling, withdrawal and dewatering.

The improved aeration system with jet aspirator has been successfully adopted in many CETPs in Tamilnadu and proposed to be implemented in more CETPs. The sustainable alternatives to total ZLD system for single combined stream have been developed and are being introduced in upgradation of CETPs in Uttar Pradesh and other States. It is also estimated that nearly 80% capacity of the wastewater from Indian Leather Sector will be treated by adopting cleaner technologies, segregation of streams and separate treatment, integration with treated domestic sewage, etc. In this circumstance for long term sustainability of the CETPs which adopted ZLD for single combined streams, the concept of separate treatment of saline streams with recovery of quality reusable salt, cleaner productions, etc. may have to be followed. UNIDO in its recent technical publications on environment and effluent treatment for World Leather sector clarifies the limitations of ZLD system and emphasize the segregated stream treatment aspects.

## 5. Conclusion

The conventional effluent treatment systems are being upgraded by segregating the saline soak stream with separate treatment, adoption of UF & RO and Multiple Effect Evaporators (MEE) with recovery of quality salt for reuse. About 200kg of quality salt (sodium chloride) is recovered from the effluent discharged during the process of each & every tone of hides & skins. The physiochemical treatment is converted into total biological treatment system to reduce sludge generation by 50%, achieving the pollution control discharge standards and clarity in treated effluent. Upgradation of CETPs with Improved

Cleaner Production Process, Centralized Chrome Recovery and Reuse systems, integrated treatment with treated domestic sewage for sustainable TDS management with financial support from National and International organization in India and other countries. These technological developments and upgradation of CETPs are being implemented in many locations covering more than 700 tanneries in India with financial outlay of more than 150 million US dollars.

## 6. Acknowledgement

Contributions of National Mission for Clean Ganga (NMCG), Department for Promotion of Industry and Internal Trade (DPIIT), National Green Tribunal (NGT), Banthar Industrial Pollution Control Company (BIPCC), Unnao Tanneries Pollution Control Company (UTPCC), Schoolnet India Limited, Asian International Union Environment (AIUE) Commission, Asian International Forum and others commission members from various countries, Indian Leather Technology Association (ILTA), IULTCS, UNIDO, Central Leather Research Institute (CSIR-CLRI), European Union including Italy, Spain, Netherlands and other Countries such as China, Romania, Turkey and Russian Federation, New Zealand are acknowledged. Leather Industry Associations and Common Effluent Treatment Plants (CETP) specifically Pallavaram, Dindigul, Madhavaram, Jajmau CETPs in India are acknowledged.

## 7. References

1. S.Rajamani (2020), Sustainable ZLD System by Adopting Centralized Treatment of Segregated Streams for Recovery of Reusable Quality Chemical, Salt & Water – First of its kind in India & Asia – Article published in Leather News India Journal.
2. S.Rajamani (2019), Innovative Technologies on Cleaner Production and Waste Management in Tanneries – Paper presented in International Leather Engineering Congress Innovative Aspects for Leather Industry, Izmir, Turkey.
3. S.Rajamani (2018), Viable Environmental Technologies integrated with Cleaner Production - Sustainable Options for Global Leather Sector – Paper presented in Innovative solutions for sustainable development of textile and leather industry – International Science Conference 2018, Oradea, Romania

4. S.Rajamani & Mr.Arnab Sha (2018), Paper published in JILTA publication in Outcome of the 11th Asian International Conference of Leather Science and Technology (AICLST 2018) Conference, Xian, China.
5. S.Rajamani (2016), Innovative Environmental Technologies including Water Recovery for Reuse from Tannery and Industrial Wastewater - Indian and Asian Scenario, Paper presented in 6th International Conference on Advanced Materials and Systems (ICAMS 2016), Bucharest, Romania.
6. S. Rajamani (2015), Noval Industrial Wastewater Treatment Integrated with Recovery of Water and Salt under Zero Liquid Discharge Concept, Paper presented in The Pacific Basin Consortium for Environment and Health, University of Indonesia, City of Depok, West Java.

---

*Read and Let Read :-*

JILTA



INTERNATIONAL UNION OF LEATHER  
TECHNOLOGISTS AND CHEMISTS SOCIETIES

### IULTCS PRESIDENT MESSAGE WELCOMING 2021

Dear IULTCS Executive Committee and members,

We started this New Year with great optimism. Through the year we had confusion, misinformation, despair and hope. Now as 2020 ends, we are stressed and thankful; however we have hope that good changes are just ahead of our lives and the leather industry. Many things will change and a possible Renaissance is on the horizon, a place where Leather belongs for its nature, beauty and luxury.

I want to thank the IULTCS Executive Committee, Member Societies and collaborators for the great work done despite the conditions we have. Many webinars, conventions and virtual meetings were held to keep the activity and uplift our industry. Great part of our job is to work and motivate the leather sector.

Moving forward, for 2021, we have planned the XXXVI Congress in Ethiopia and in 2022 Regional congresses in Italy and New Zealand. Hopefully the National conventions will happen successfully in 2021.

We will continue working with GLCC to draft a plan for the future of the leather industry. We will have another virtual meeting on the first quarter of 2021 with an update from the commissions.

Our work must continue to minimize the damage created by the incorrect, misleading and improper information about the article Leather. We have a great opportunity to continue working with Leather Naturally as scientific support. Additionally, we need help on the media, particularly on Wikipedia, where the information on leather needs to be corrected and updated. Geoff Holmes and his team is already helping. Who else can help us?

Wish you all Merry Christmas and a Happy, Healthy and Safe 2021. Let's be optimistic.

Thank you and kind regards,

**Dr. Luis A. Zugno**, IULTCS President, C/o, Global Innovation Manager – Leather, Buckman International

*(Source : Email dated 24/12/2020)*

---

*Read and Let Read :-*

JILTA



## KNOW YOUR SHOE Part - 7

**Mr. Shome Nath Ganguly**

Former Principal, Karnataka Institute of Leather Technology

### DANCE SHOE



#### What is a dance shoe?

All dance shoes have non-slip suede like soles in the bottom of the shoe. If any metal shank is in the arch for support it will be a thin piece, very light in weight and flexible. They are simply put, made to dance!

#### Standard Dance Shoe for Men.

Men's dance shoes are typically black lace-up oxfords. Men usually wear standard oxford-style lace-up shoes with a heel height 1 to 2 inch comparable to the average men's dress shoe. Men generally wear this shoe for competition rather than rehearsals or lessons.

#### Standard Dance Shoe for Women

This is the standard style of shoe for women in ballroom dance. This style is sometimes referred to as "modern" or "court" shoes and is worn to practice and perform salsas, waltzes, foxtrots, the cha-cha, swing dancing, tango, or just about any other style of ballroom dance.

Ballet flats are women's shoes for everyday wear which are similar to a women's ballet shoes with a very thin heel or the appearance of no heel at all. It is also known in the UK as ballerinas, ballet pumps or skimmers. These shoes are with a very low heel and a relatively short vamp, exposing much of the instep.

The style sometimes features a ribbon-like binding around the low tops of the slipper and may have a slight gathering at the top-front of the vamp and sometimes a tiny, decorative string tie. Ballet slippers can be adjusted and tightened to the wearer's foot by means of this string tie.

Ballet flats are especially popular for women and girls of all ages, being worn as a fashion trend and as a more comfortable alternative to high heels with everything from casual wear to formal wear and everything in between from jeans, shorts, skirt, dresses, shortalls, and leggings. These are now come in a wide range of styles and colours including the popular black ballet flat either plain or with a shoe string bow or other decoration at the upper toe part of the shoe. Not all but a number of school allow ballet flats as part of the uniform requirements and many school band require ballet flats in black as part of the dress requirements for performances.

## What Makes Dance Shoes Different?

The key differences between dance shoes and regular shoes start with its soles. Ballroom dance shoes have a thin suede sole that allows the shoes to glide across the floor with just the right amount of grip. The dancers glide across the floor week after week, making their moves look effortless. One of their secrets is choosing the right dance shoe. Dance shoes are also flexible, allowing the shoe to move with the foot. The regular shoe has a standard sole attached on the lasted bottom with a heel of any height.



Dance Sneakers Split-Sole (two-part sole)



A well-designed shoe can not only allow a dancer to glide, slide, and move with ease, but also highlight footwork and leg lines. Shoes not intended for dance usually have a rubber sole to help with grip and durability but grip is the opposite of what dancers want! Dance shoes mostly come in European sizes,

which are about 1.5 sizes smaller than American sizes. However not all manufacturers adhere to these sizing details, it is advisable to make trial wear before you're ready to get a new pair. Now a days with assistance from modern shoe technology manufacturer can easily scan his foot from a foot scanning machine and send the same to its shoe unit to make 100% accurate & comfortable shoe for their client. One can keep this last with him for his life time shoe.

## Dance shoes should be worn off the dance floor ?

Traditional dance shoes with suede bottoms should usually be kept solely for stage use. Suede catches easily on rough surfaces, so going from the sidewalk straight to the dance floor isn't the best idea. Keeping the suede bottoms smooth is important when stepping onto the dance floor; it's that smoothness that gives dancers their on-stage grace.



**Alternatives :** More and more designers lately are looking to dance shoes for inspiration. With the biggest complaint women have about high heels being a lack of comfort, shoemakers now have begun taking dance shoe designs & its comfort ability to adapt them for everyday heels so that people can wear to the

office or on a night on the town. The reason is simple dance shoes are made specifically to be comfortable and functional. If you want a dance shoe that you can wear daily, the design should be with a variety of settings in mind. It makes some of the most comfortable dance shoes, making them an ideal choice for hobbyists and professionals alike. But some designers also offers a great selection of fashion shoes that can be worn every day.

### Style and Fit for Women

Women's dance shoes come in open & closed-toed versions. Either variation is acceptable based on individual preference, but sometimes closed-toe shoes are recommended for beginners, as they make it easier to avoid being stepped on or rubbing against your partner's shoes. The heel height is between 1 and 3 inches, with the standard heel height being 2.5 inches. A slim heel makes the moves easier. However, a flare heel (more comfortable) is preferred for Latin-style dances because it provides more stability.

Comfortable shoe is that grips your foot properly but isn't too tight. Shoes that are too tight can cause blisters and other various problems but shoes that are too loose can also cause your discomfort. It is better to choose from a wider varieties of fittings to get right shoe that fit you perfectly. Most women choose pump shoe that are open along the side of the feet and a closed toe box, secured to the foot with an ankle strap, though strappy sandals are also a common purchase. With more shoe designers now using latest developments of last with individual measurements to make the dance shoe designs to provide maximise comfort to the wearer.

### Style and Fit for Men

Men's style shoes come with a Cuban heel, which is shorter than standard heels, 1.5 inches compared to the typical 2.5

inches. All-black Latin shoes are the go-to choice for most men, but they also come in all white, brown, two-toned, and more. This kind of shoe is most often made out of leather, Nubuck or Patent leather. Much like the fit for women's Latin style shoes, the shoe shouldn't be too tight or too loose; they should fit comfortably to avoid slipping or blistering.

### Dance Shoes with Synthetic materials

Most dance shoes now a days are made out of some type of synthetic leather or suede. However, there has plenty of options to make shoes with non leather materials. Now a days plenty of non leather material (Synthetic upper material) is available in the market. Though their quality can't be compare with leather but for durability it provides a substantial standard. Synthetic dance shoes have rubber soles, but there's also artificial suede is available which is made from synthetic materials. Many of the same styles of pumps, sandals, boots, and practice shoes that are typically leather are also available in these non leather materials.

### Maintain Your Dance Shoes

Ballroom dance shoes need to be polished regularly to keep them in good condition. Suede shoes lose their nap, the fine fibers that give its distinctive texture after a couple of months, especially if they're worn regularly off the dance floor. A steel-bristled brush can revive your shoes and help put the nap back in the suede. It's a good idea to Scotchgard your shoes before you wear them. Not only will that help protect them from moisture; they are also much easier to clean if they're treated before they're worn. You might also want to consider applying a silicone-based oil regularly to help prevent cracking.

Most designers provide a cloth bag for your shoes use it! If you know you won't be wearing your dance shoes for extended periods, use the dust bags or the box the shoes came in to keep them clean and safe.



### INDIA ISSUES QUALITY CONTROL ORDER FOR SOME LEATHER GOODS TO RESTRICT CHEAP IMPORTS



India on Thursday notified a quality control order on leather footwear and products in a move that will restrict their cheap imports into the country the central government, after consulting the Bureau of Indian Standards (BIS), is of the opinion that it is “necessary or expedient so to do in the public interest”.

The Department for Promotion of Industry and Internal Trade (DPIIT) mandated the BIS with the certification of ten such products including leather safety boots and shoes, canvas boots rubber sole, sports footwear and antiriot shoes in the Footwear made from Leather and other materials (Quality Control) Order, 2020. India imported leather articles worth \$ 453.12 million in FY20 of which \$318.45 million came from China.

“Goods or articles...shall conform to the corresponding Indian Standard specified...and shall bear the Standard Mark under a licence from the Bureau,” DPIIT said in a notification.

The list of goods also includes canvas shoes rubber sole, safety rubber canvas boots for miners, leather safety footwear having direct moulded rubber sole, leather safety footwear with direct moulded polyvinyl chloride (PVC) sole, high ankle tactical boots with PU - rubber sole, and derby shoes.

The order follows the Toys (Quality Control) Order that requires all toys and material for children below 14 years to be certified by the BIS which is India’s national standards body.

The department had in January issued quality norms to control imports of steel tubes, tubular and other wrought steel fittings, steel tubes for structural purposes and water wells, along with heavy duty electric cables, aerial bunched cables, elastomeric insulated cables, welding cables, shot firing cables and halogen-free, flame retardant cables.

Toys, furniture, sports goods and glass items are some of the products in a list of about 370 for which technical standards have been in the works since late last year and seek to reduce dependence on imports and improve domestic manufacturing.

*(Source : The Times of India – 29/10/2020)*

### TANNERIES IN TATTERS: COUNTRY’S LEATHER SECTOR ON THE VERGE OF COLLAPSE



Employing over 4 million people, the Indian leather sector has always enjoyed a significant place in the Indian economy. Bestowed with an abundance of raw materials as the country is endowed with 20% of world cattle & buffalo and 11% of world goat and sheep population, the key sector, with annual exports to the tune of \$5.5 -\$6 billion, has been a major foreign exchange earner for the country.

That, however, was the reality before the pandemic struck. With little or no liquidity, the industry now finds itself at the brink of total collapse.

“To survive through this extraordinary phase, the sector needs an instant shot of liquidity. 70% of our overseas orders have

now been cancelled, and for the rest, buyers are asking for heavy discounts,” says Puran Dawar, Regional Chairman, North – Council for Leather Exports (CLE).

A cursory look across different leather-based industrial zones of the country gives further credence to the view that losses due to cancelled orders have only been mounting in recent times. In Agra, one of the globally famed, leather-based industrial hub, known to account for nearly 30% of the production of leather shoes in India, liquidity tops the list of bottlenecks faced by city's leather goods manufacturers.

Revealing the drastic turn of events for leather exporters from this north India based cluster, Dawar, who is also the president of Agra Footwear Manufacturers and Exporters Chamber (AFMEC), adds that the regional cluster's total exports reimbursement stuck (including for those goods undelivered at ports, ready but cancelled orders) stands at an upwards of about Rs 4000 crore. It's noteworthy that India remains the second-largest producer of footwear in the world (according to Council for Leather Exports) and for many MSME-dominated industrial clusters such as the one at Agra, any lag in their working capital may prove suicidal for their very existence.

Also, in addition to direct exports, deemed exports, executed mainly by MSMEs in such clusters, also play an essential role in the entire supply chain, industry analysts agree. According to Dawar, in case of Agra footwear cluster alone, while direct exports of footwear is valued at around Rs 3500 crore, the 'deemed exports' of footwear is worth Rs 1500 crore.

Dawar further mentions that exports reimbursements relating to the spring-summer season have been stuck. While for the autumn-winter season, the cluster has raw materials, but already secured orders now either stand cancelled or have been put on hold indefinitely.

### Eastern pain

The situation in the eastern part of the country, home to many leather-based hotspots, is equally grim.

“In the eastern region, handbags are a major commodity produced. This segment is severely hit as all the foreign retail

outlets and buying houses are shut down. About Rs 2000 crore worth of orders have either been cancelled or have been put on hold,” discloses Ramesh Kumar Juneja, President Calcutta Leather Complex Tanners Association.

Making life further difficult for firms in the eastern part of the country these days is the devastating impact of Cyclone Amphan that has destroyed many firms' critical infrastructure in many areas.

According to Juneja, shortage of workers is also hitting production. Completing an order is very difficult, since the industry doesn't have a sufficient workforce to execute those.



“Now, even if we are getting a few orders, we are not able to run factories since most of the workers have gone back to their native places. The tragedy was that when the government had allowed factories to open with 35% workforce, we did not have more than 10% workforce,” he rues.

Asked if the government's recent relief measures addressed their concerns, Juneja while 'welcoming' the announcements, states, “These are collateral-free loans that one has to repay, isn't it so?”

### Immediate help sought

Given the depressing state of affairs across various leather clusters, the industry believes the government should urgently offer liquidity support to the critical sector.

“Agra footwear sector is looking for support for at least one year salary and wages for which based on the turnover, a minimum of 10% Interest-free loan as term loan payable back in next 3 years, is being demanded. Also, 50% working capital support on the same is sought,” says Dawar.

To help the exporting fraternity in the leather sector, the industry representative pitches for lower interest rates. Mentioning that in countries such as Germany, interest rates for the leather sector stands at 0.25%, he asserts that due to the high cost of capital, the country loses competitiveness at global marketplaces.

“Today, even a reduced interest rate of 9.5% is not helping firms compete against global competitors. For the manufacturing sector, the interest rates should be based upon globally followed Libor rates. This, we want for the next 5 years. This is not a big ask as we are passing through unprecedented times that warrant unprecedented efforts.”

Dawar adds that the disbursement of wages and salaries for the next three months remains the sector’s biggest pain point today. To this effect, he suggests the living wages formula (which refers to the minimum income necessary for workers to meet basic needs) should be derived and paid from employees’ ESIC funds.

“ESIC is holding reserves of Rs 84,000 crore and this fund may be replenished by increasing contribution of ESI by 1% in the next 3 years. Interest-free term loan to the tune of 50% of present Cash credit (CC) limits payable yearly in the next 5 years should also be given to the sector,” he urges.

*(Source : Economic Times – 30/08/2020)*

### **DEVELOPMENT COUNCIL TO TRANSFORM FOOTWEAR AND LEATHER SECTOR**

The Development Council for Footwear and Leather industry has been formed to improve competitiveness and transform the sector by supporting it through various schemes and favourable trade policies.

The Union government has formed a 25-member development council to build a robust supply chain for the footwear and leather industry that would make the sector competitive in both domestic and export markets, two officials familiar with the matter said.



The Union government has formed a 25-member development council to build a robust supply chain for the footwear and leather industry that would make the sector competitive in both domestic and export markets, two officials familiar with the matter said.

The council is set up as per the directive of the Union minister for commerce and industry Piyush Goyal, who is taking specific measures to promote 20 sectors, including footwear, leather, furniture, agro-chemicals, ready-to-eat food, steel, textiles, electric vehicles, automobile components, sports goods, and toys, the officials said requesting anonymity.

Goyal on July 27 had said though initially, the government had initially identified 12 industrial sectors to focus upon, later they have been expanded to 20 for scaling up investments and leveraging the country’s competitive edge.

The Development Council for Footwear and Leather industry is formed to improve competitiveness and transform the sector by supporting it through various schemes and favourable trade policies, the officials said.

The council is headed by a chairman, who is a representative of the industry. A joint secretary in the Department for Promotion of Industry and Internal Trade (DPIIT) is its member secretary and other members are drawn from various government bodies and trade, one of the officials said.

The council is represented by the Union ministry of textiles, the Director General Foreign Trade (DGFT), the ministry of micro,



small and medium enterprises (MSMEs), the National Institute of Fashion Technology (NIFT), the Bureau of Indian Standards (BIS), the Footwear Design and Development Institute (FDDI), the Council for Leather Exports (CLE) and some leading companies, he added.

The government had constituted a similar group to promote the bicycle industry on November 15 last year.

DPIIT, which is an arm of the commerce and industry ministry, had formed the development council for bicycle for vision planning in design, engineering and manufacturing of lighter, smarter, value-added, safe and faster premium bicycles, which are comparable with global standards for exports and also for the domestic market, a second official said.

A commerce and industry ministry spokesperson confirmed the development.

“The Development Council for Footwear and Leather Industry has been established for the formulation and implementation of promotional and developmental measures for the growth of labour-intensive footwear and leather sectors in the country,” he said.

Development councils are formed for promotion and growth of identified sectors.

The formation of the council for the footwear and leather sector is in line with the Industrial (Development and Regulation) Act, 1951, the officials said. The government is also providing duty protection to these sectors from dumping of Chinese products, they said.

While presenting the Union budget on February 1 this year, finance minister Nirmala Sitharaman had said the unhindered imports of goods under free trade agreements (FTAs) were hurting domestic industries, particularly MSMEs and such imports required stringent checks.

She had announced hikes in customs duty on items such as footwear and furniture in a bid to protect them from imports, particularly from China.

The budget had raised import duty on footwear from 25% to 35%.

D K Aggarwal, President, PHD Chamber of Commerce and Industry, said the council would act as an enabler for the domestic footwear and leather industry to become globally competitive and also provide a boost to domestic manufacturers through more job creation.

“It will help the Indian footwear and leather industry in exploring new market opportunities in the global arena and strengthen its supply chain abroad, especially in top export destinations amid the hard times because of the coronavirus disease (Covid-19) outbreak,” he said.



Mohit Singla, chairman, Trade Promotion Council of India (TPIC), said the move is aimed at reducing imports. “The Development Council for Leather and Footwear Industry will provide a big boost to the domestic sector by bringing all stakeholders under one roof in a bid to establish synergies in both representations and policy formulations,” he said.

(Source : Hindustan Times – 16/10/2020)

### NEW DEFINITION OF MICRO, SMALL AND MEDIUM ENTERPRISES – CLARIFICATION BY RBI



The Reserve Bank of India has issued a circular No.- RBI/2020-2021/26, Dated - 21.08.2020 regarding new definition of Micro, Small and Medium Enterprises. This circular states the following.

NEW LOOK MSMEs		
CURRENT: LINKED TO INVESTMENT		
	Manufacturing	Services
Micro	Up to ₹25 lakh	Up to ₹10 lakh
Small	Over ₹25 lakh to ₹5 crore	Over ₹10 lakh to ₹2 crore
Medium	Over ₹5 crore to ₹10 crore	Over ₹2 crore to ₹5 crore
 <b>MANUFACTURING:</b> Plant & machinery investment Source: Ministry of MSME		 <b>SERVICES:</b> Investment in equipment
PROPOSED: LINKED TO TURNOVER		
Micro:	Small:	Medium:
Up to ₹5cr	Over ₹5cr to ₹75cr	Over ₹75cr to ₹250cr

## Classification of Enterprises as per new definition:

1. Classification/re-classification of MSMEs is the statutory responsibility of the GoI, Ministry of MSME, as per the provisions of the MSMED Act, 2006.
2. As per para 2 of the said Gazette notification all enterprises are required to register online and obtain 'Udyam Registration Certificate'. All lenders may, therefore, obtain 'Udyam Registration Certificate' from the entrepreneurs.

BusinessToday.In			
EXISTING AND REVISED DEFINITION OF MSMEs			
EXISTING MSME CLASSIFICATION			
CRITERIA: INVESTMENT IN PLANT & MACHINERY EQUIPMENT			
Classification	Micro	Small	Medium
Manufacturing Enterprises	Investment < ₹25 lakh	Investment < ₹5 crore	Investment < ₹10 crore
Service Enterprise	Investment < ₹10 lakh	Investment < ₹2 crore	Investment < ₹5 crore
REVISED MSME CLASSIFICATION			
COMPOSITE CRITERIA: INVESTMENT & ANNUAL TURNOVER			
Classification	Micro	Small	Medium
Manufacturing & Services	Investment < ₹1 crore & Turnover < ₹5 crore	Investment < ₹10 crore & Turnover < ₹50 crore	Investment < ₹20 crore & Turnover < ₹100 crore

Validity of EM Part II and UAAMs was issued till June 30, 2020 :

1. The existing Entrepreneurs Memorandum (EM) Part II and Udyog Aadhaar Memorandum(UAMs) of the MSMEs obtained till June 30, 2020 shall remain valid till March 31, 2021. Further all enterprises registered till June 30, 2020, shall file new registration in the Udyam Registration Portal well before March 31, 2021.
2. 'Udyam Registration Certificate' issued on self-declaration basis for enterprises exempted from filing GSTR and / or ITR returns will be valid for the time being, up to March 31, 2021.

## Value of Plant and Machinery or Equipment:

The online form for Udyam Registration captures depreciated cost as on 31<sup>st</sup> March each year of the relevant previous year.

Existing and Revised Definition of MSMEs			
Existing MSME Classification			
Criteria : Investment in Plant & Machinery or Equipment			
Classification	Micro	Small	Medium
Mfg. Enterprises	Investment < Rs. 25 lac	Investment < Rs. 5 cr.	Investment < Rs. 10 cr.
Services Enterprise	Investment < Rs. 10 lac	Investment < Rs. 2 cr.	Investment < Rs. 5 cr.
Revised MSME Classification			
Composite Criteria : Investment And Annual Turnover			
Classification	Micro	Small	Medium
Manufacturing & Services	Investment < Rs. 1 cr. and Turnover < Rs. 5 cr.	Investment < Rs. 10 cr. and Turnover < Rs. 50 cr.	Investment < Rs. 20 cr. and Turnover < Rs. 100 cr.

Therefore, the value of Plant and Machinery or Equipment for all purpose of the Notification No. - S.O.2119(E), Dated - June 26, 2020 and for all the enterprises shall mean the Written Down Value (WDV) as at the end of the Financial Year as defined in the Income Tax Act and not cost of acquisition or original price, which was applicable in the context of the earlier classification criteria.

(Source – Council for Leather Exports)

**We care for the environment**

# **CLC TANNERS ASSOCIATION**

**Think Leather, Think Bengal**

**Asia's largest & most integrated leather complex with state of the art Common Effluent Treatment Plant (C.E.T.P.)**

**Over 400 Plus Tannery Units.**

**Manufacturers & Exporters of finished & leather articles.**



**[www.calcuttaleathercomplex.in](http://www.calcuttaleathercomplex.in)**





SPONSORED BY:



*We care for the environment*

**CALCUTTA LEATHER COMPLEX TANNERS ASSOCIATION**

**AN ISO CERTIFIED COMPANY**

**Think Leather, Think Bengal**





This article was originally published in Vol.-26, No.-10, April' 1978 issue of JILTA.

## SCIENCE AND TECHNOLOGY

### A Critical Review And Prospects Of Titanium As A Potential Mineral Tanning Agent

By U MANIVEL, S BANGARUSWAMY, J B RAO and M SANTAPPA, of  
the Central Leather Research Institute, Madras.

*This article attempts to analyse the chemistry of titanium and its salts and the uses of the metal in general. Comparison is made of the co-ordination chemistry of titanium with that of chromium, zirconium, etc., elements already in use in the leather industry. The experiments conducted with titanium in protein chemistry are also reviewed. Possible areas of work to fill the gaps in the knowledge on the industrial application of titanium in the field of leather processing are identified.*

**T**itanium is present in the abundantly available sands on the west coast of our country. Travancore Titanium Products Ltd produces titanium products. Besides, India is also importing  $\text{TiO}_2$  at a cost of about Rs 8 a kg, which is much lower than the price of alumina (Rs. 40/Kg.) and chrome extract (1000 gms.  $\text{Cr}_2\text{O}_3$ —Rs. 23).

Titanium is found to have tanning property for use in the leather industry besides being used as pigments. Titanium tannage produces white leathers with anti-corrosion properties, a special property of titanium that can be profitably utilized in the production of leathers for use in protective gloves and other outfits required to be used in corrosive atmospheres. The white leathers obtained with titanium will also lend themselves for dyeing and finishing into pastel shades. It may be that in due course titanium will find increasing use in the leather industry in view of its lower cost and other special properties specific to titanium.

#### Uses of Titanium and Its Products in General

The principal properties of titanium that are of interest to metallurgists and engineers are its low density, better strength and greater resistance to corrosion. Because of its resistance to corrosion it is finding increasing uses in aircraft construction. Some of its alloys with Cr and Fe and Mo and Fe have desirable mechanical properties. In addition, ferro-titanium is used as a scavenger in the steel industry. The oxide is also used as an opacifier in the paper and vitreous enamel industries.  $\text{TiCl}_4$  is used in warfare for producing smoke-screens since it gives off highly opaque particles of the tetrahydrate ( $\text{TiCl}_4 \cdot 4\text{H}_2\text{O}$ ) and the hydroxide ( $\text{Ti}(\text{OH})_4$ ) in the presence of moist air. Titanium carbide is very hard and used as an abrasive.  $\text{TiO}_2$  after mixing with  $\text{BaSO}_4$  is used as a white pigment (titan white) in the paint industry. Compounds of titanium are also used in the dyeing industry for obtaining discharge



effects producing patterns on dyed fabrics. Organo titanium compounds in conjunction with silicone are found to produce water-resistant properties on acetate and nylon fabrics.

#### Titanium in Leather Industry

The uses of titanium alone as well as in combination with other tanning agents have been reported as far back as 1902. In that year, Lamb<sup>2</sup> took a British patent using basic sulphate, chloride or oxalate containing 0.3–0.5 mole of  $H_2SO_4$ /mole of  $TiO_2$  in the tanning of the skins. He was successful in obtaining white leathers with shrinkage temperatures up to 85°C.

Motov et al<sup>3,4</sup> have shown the tanning potency of titanium using diammonium titanyl sulphate monohydrate  $((NH_4)_2TiO(SO_4)_2 \cdot H_2O)$  and used titanium in this form for the tanning of hides as well as fur-skins. Nekhamkin et al<sup>5</sup> have prepared combination tanning systems containing Zr, Al and Cr, with titanium. Roman et al<sup>6</sup> found that citric acid, tartaric acid and maleic acid when added to ammonium titanyl sulphate prevent the precipitation of the latter during tanning by increasing the acidity; they have also reported that citric acid is the most effective among the three acids taken up for their studies. Krasnohlyk et al<sup>7</sup> have reported that the titanium tanliquor stabilized with citric acid led to a lower degree of crosslinking than the normal liquor indicative of the masked nature of the citrate-added liquor. Roman et al<sup>6</sup> have further investigated the reaction of ammonium titanyl sulphate with  $-OH$  and  $=NH$  groups of collagen, using polyvinyl alcohol ( $-OH$ ) and the nylon 6 ( $=NH$ ) for their experiments; ion exchange studies of ammonium titanyl sulphate indicated predominantly anionic

complexes although cationic complexes were also found. Arbuzov et al<sup>8</sup> have studied the phenomenon of interaction between Ti, Cr. and Zr., etc., with gelatin gels and found that the maximum melting points of gels treated with sulphates of Cr., Al., and Ti are found nearer the shrinkage temperatures of leathers tanned with those mineral salts, although the melting point of Zr-treated gels is about 10° lower than the shrinkage temperature of Zr-tanned leather. They have obtained leathers tanned with titanium at 85% basicity which are stable at cold temperatures. Roman et al<sup>6</sup> have also done some amount of work on the properties of leathers obtained with Cr-Ti tanning salts using mole ratios of Cr/Ti 3:3–5:0. During these combination tannages, titanium has been found to be replaced by Cr, although the tensile strength was the same as that of straight Cr. tanned leathers. Magomedov et al<sup>9</sup> reported an increase of elastic modulus with the increase of Zr. or Ti. salts in the tanning of leathers. Kucherenko<sup>10</sup> has reported that the adhesion of finish coat (casein-HCHO) to the titanium tanned leathers is lower as compared to the Cr. tanned leathers. Lawrence<sup>11</sup> noticed that titanium tanned leathers are found to have good scuff resistance when used in the children's shoes. Metelkin et al<sup>12</sup> have reported a 5:2 combination of  $ZrO_2$  and  $TiO_2$  which has been found to produce sole leathers with good strength, wear resistance and dimensional stability. Andrinaov et al<sup>13,14,15</sup> have shown that leathers are made water-proof by treating them with cross-linking agents such as those obtained by reacting  $HO \cdot CH_2 \cdot CH_2 \cdot NH_2$  with  $Ti(OBu)_4$  and



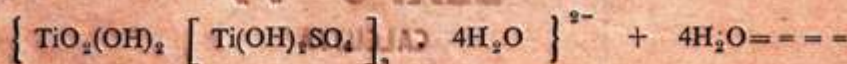
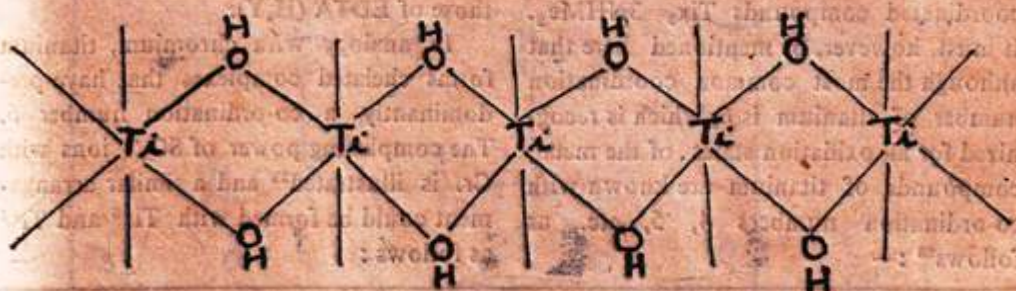
compounds of the type  $Ti(OR)_4$ , where R is an aliphatic hydrocarbon ( $>C_{12}$ ) or hydroxylated aliphatic hydrocarbon of less than four hydroxy groups. They also found the hydrophobic properties of ethers of Si and Ti on the tanned skins. The covering power of titanium based pigments<sup>16, 17, 18</sup> in the finishing of white leathers is well-known.

#### Co-ordination Chemistry of Titanium vis-a-vis Chromium, Zirconium, etc.

Titanium occupies the IV B position in the Periodic Table<sup>19</sup> and is the first member of the 3d Transition series, having four valence electrons. Its electronic configuration is  $3d^2 4s^2$ . The most stable and most common oxidation state of four involves the loss of  $3d^2 4s^2$  electrons signifying  $Ti^{4+}$ . However, the element may also exist in a variety of lower oxidation states viz.,  $Ti^{3+}$ , +2, 0, -1 and -2. The

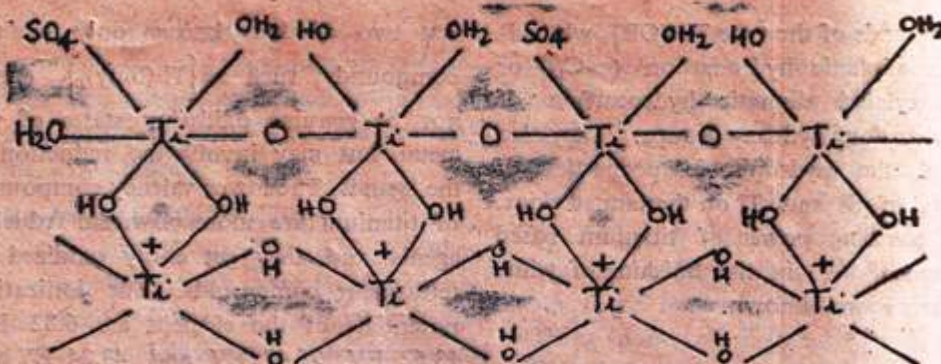
last two of these, known only in the compounds such as  $\{Ti(bipy)_2\}^{2-}$ , may not be genuine oxidation states of the metal, but may involve the reduction of the ligands. The lower valency compounds of titanium are more powerful reducing agents and they get easily oxidized to tetravalent compounds. The ionization potentials of the element are 6.82 EV, 13.52 EV, 27.47 EV and 43.24 EV and its ionic  $M^{2+}$  and covalent radii are 0.68 and 1.36. The halides of both titanium (IV) and zirconium (IV) are very readily hydrolysed and it is reported that the work in these compounds should be carried out under moisture-free conditions.

In the majority of the cases, titanium exhibits a co-ordination number of 6, and polycationic as well as polyanionic complexes of the following types<sup>20</sup> are known :



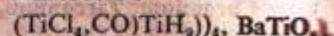
The hydrolysis of such titanium complexes is accompanied by the condensation of hydroxo groups and formation of oxobridges thus—





It has also been found that at the higher concentration of Ti (IV) and  $H_2SO_4$ , the degree of polymerization is greater. Disubstituted products<sup>21</sup> were obtained from the reactions of Ti (IV) chloride with oxalic and succinic acids. I.R. studies indicate a Ti-centred octahedral co-ordination compound with titanium having a co-ordination number 6. Unlike in zirconium, the trivalent state of titanium is also fairly stable as the quadrivalent state. Ti (III) halides<sup>22</sup> react with dimethylamine to give six-coordinated compounds  $TiX_3 \cdot 3NHMe_2$ . It must, however, be mentioned here that although the most common coordination number of titanium is 6, which is recognized for all oxidation states of the metal, compounds of titanium are known with co-ordination numbers 4, 5, etc., as follows<sup>23</sup> :—

Co-ordination Number 4 :



Co-ordination Number 5 :  $TiBr_3 \cdot 2NMe_3$

Co-ordination Number 7 :  $TiCl_4$ , Triarsine

Co-ordination Number 8 :  $Ti(NO_2)_4$

Titanium forms complexes with neutral bidentate ligands such as ethylenediamine and propylene diamine. The Ti (IV)–EDTA complex<sup>24</sup> is stable for about 17 days at pH's below 2. The reactions of multidentate ligands having more than three donor atoms with titanium halides are not yet studied with the exception of those of EDTA ( $H_4Y$ ).

In analogy with chromium, titanium forms chelated complexes that have predominantly a co-ordination number 6. The complexing power of  $SO_4^{2-}$  ions with Cr. is illustrated<sup>25</sup> and a similar arrangement could be formed with  $Ti^{+3}$  and  $Ti^{+4}$  as follows :

## LEXPO '79

CALCUTTA

WORLD TRADE FAIR OF  
LEATHER • LEATHER GOODS AND ALLIED PRODUCTS

23rd to 26th JANUARY '79

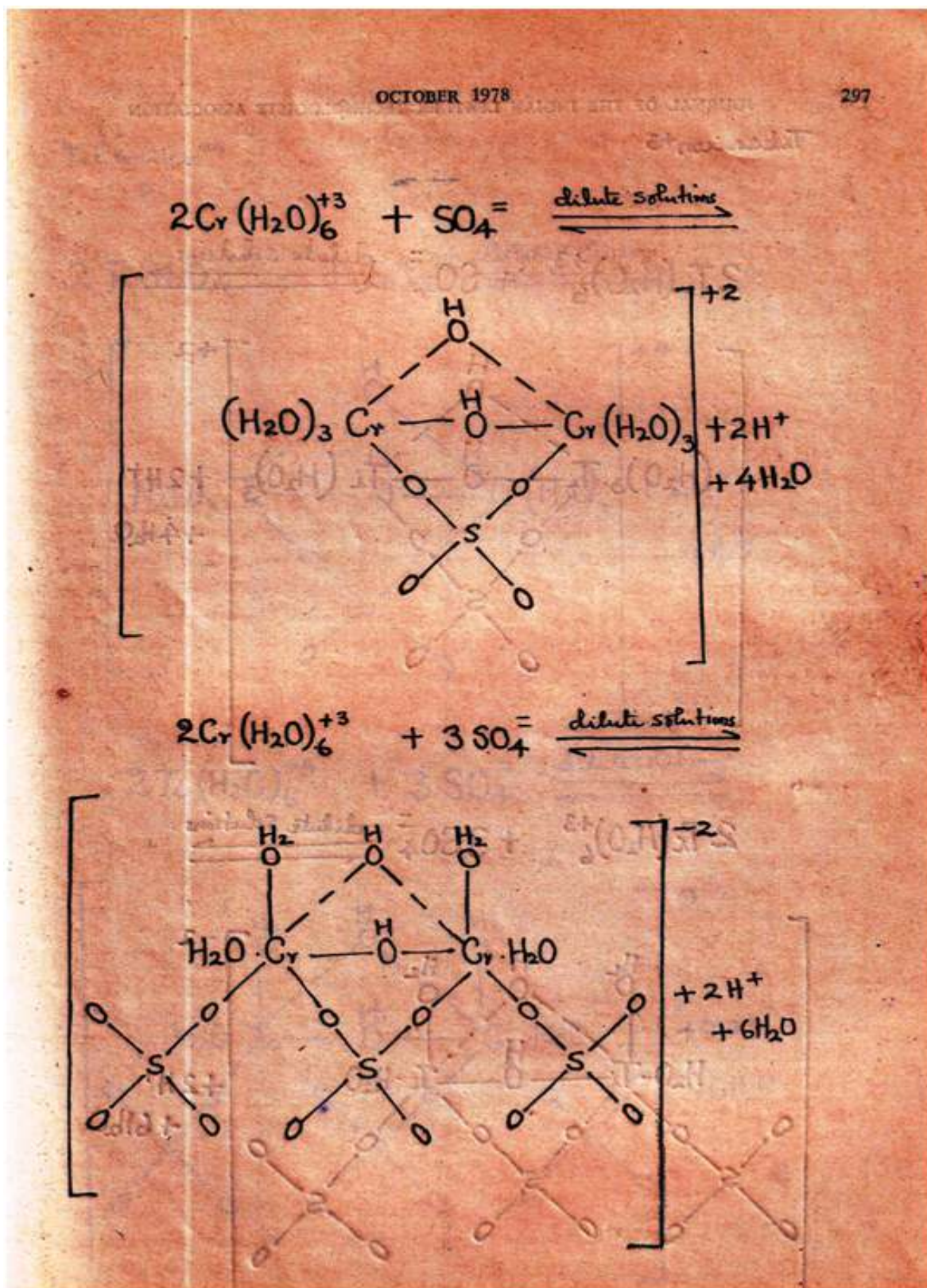
AT PARK HOTEL, CALCUTTA

SPONSORED BY :

INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION

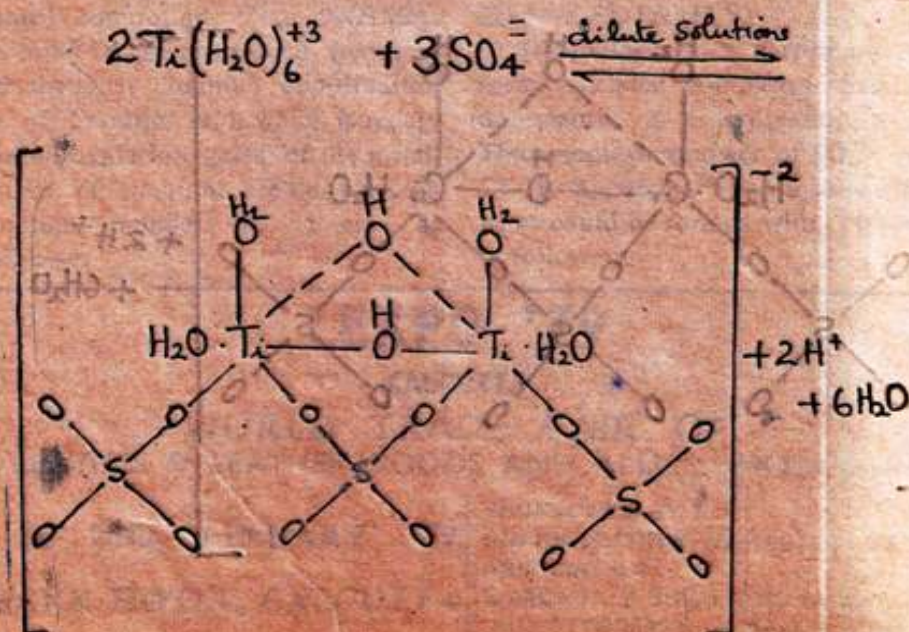
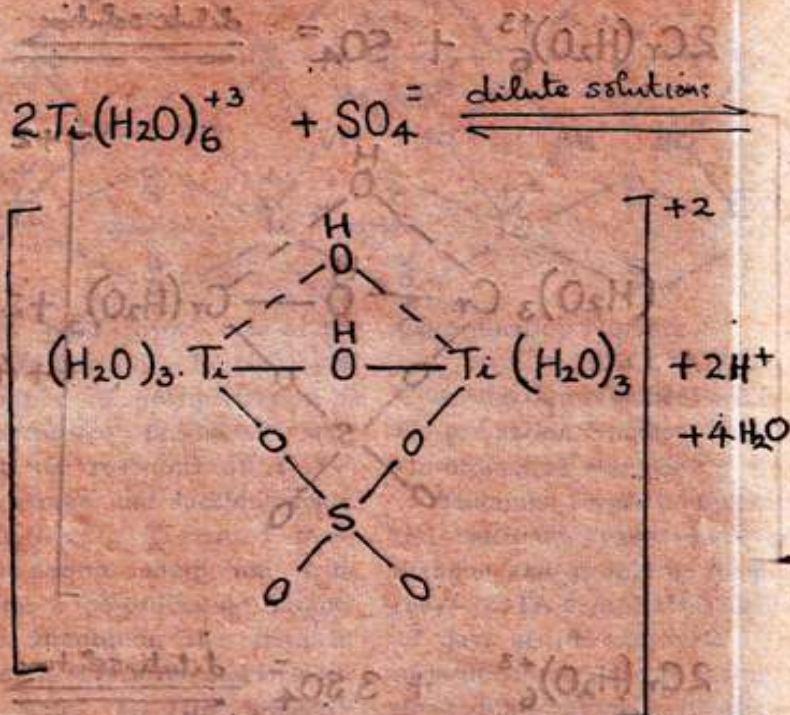
MERCANTILE BUILDINGS, LALBAZAR  
CALCUTTA-700001 ★ Phone : 22-7472



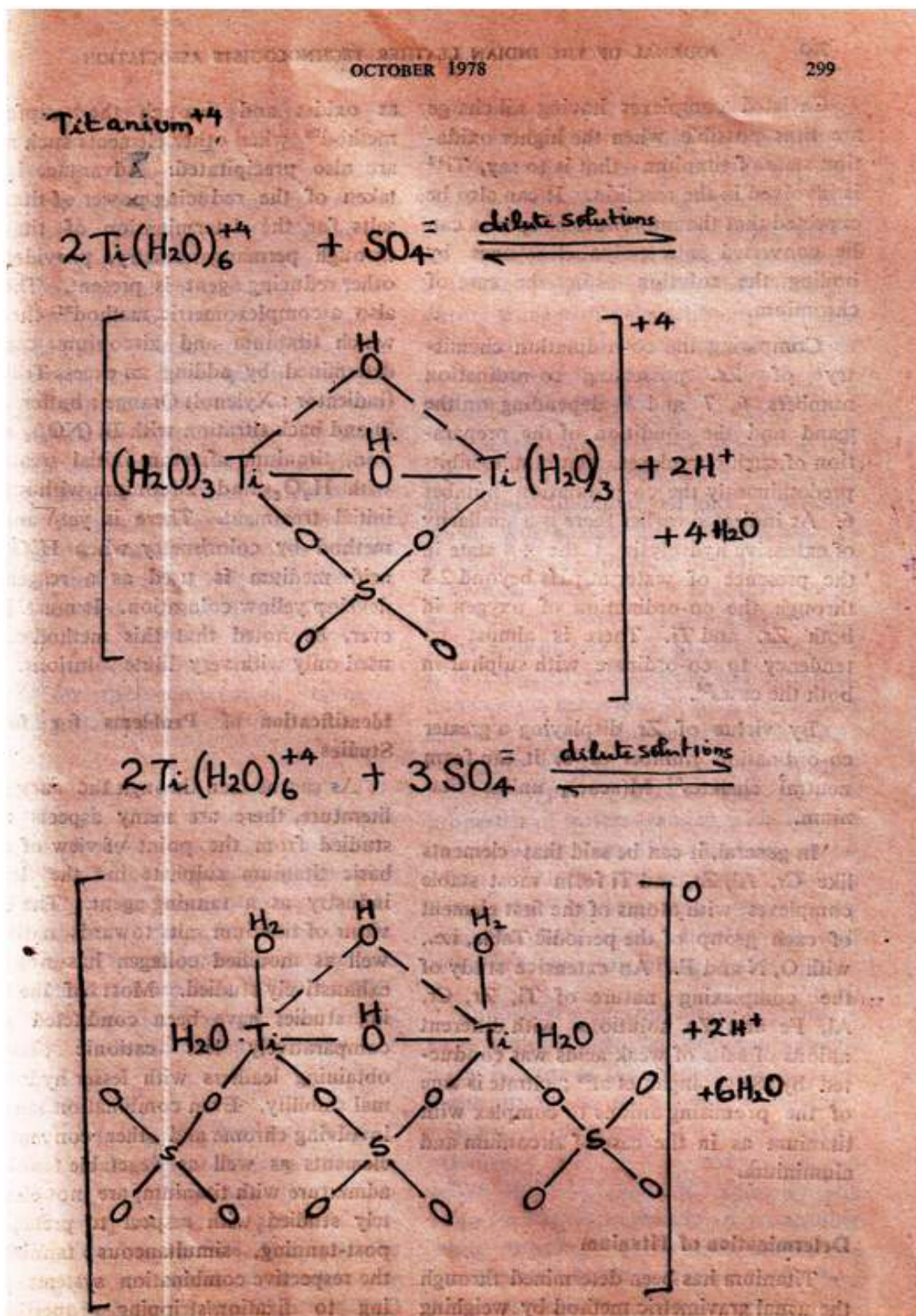




Titanium<sup>+3</sup>









Chelated complexes having nil charge are thus possible when the higher oxidation state of titanium—that is to say,  $Ti^{+4}$  is involved in the reaction. It can also be expected that the mononuclear species can be converted into polynuclear ones by boiling the solution as in the case of chromium.

Comparing the co-ordination chemistry of Zr. possessing co-ordination numbers 6, 7 and 8 depending on the ligand and the condition of the preparation of such complexes, titanium exhibits predominantly the co-ordination number 6. As indicated earlier there is a similarity of extensive hydrolysis at the +4 state in the presence of water at pHs beyond 2.5 through the co-ordination of oxygen in both Zr. and Ti. There is almost no tendency to co-ordinate with sulphur in both the cases<sup>26</sup>.

By virtue of Zr displaying a greater co-ordination number of 8, it can form neutral chelates<sup>27</sup>  $M(acac)_4$  unlike titanium.

In general, it can be said that elements like Cr, Al, Zr, and Ti form most stable complexes<sup>28</sup> with atoms of the first element of each group of the periodic Table, i.e., with O, N and F. An extensive study of the complexing nature of Ti, Zr, Cr, Al, Fe and Zn solutions with different anions of salts of weak acids was conducted by Selvarangan et al<sup>29</sup>; citrate is one of the promising anions to complex with titanium as in the case of zirconium and aluminium.

#### Determination of Titanium

Titanium has been determined through the usual gravimetric method by weighing

as oxides and through the cupferron method<sup>30</sup> when other elements such as Zr are also precipitated. Advantage is also taken of the reducing power of titanous salts for the determination of titanium through permanganometry, provided no other reducing agent is present. There is also a complexometric method<sup>31</sup> through which titanium and zirconium can be determined by adding an excess Trilon B (indicator : Xylenol) Orange; buffer pH : 2) and back titration with  $Bi(NO_3)_3$  solution, titanium after an initial treatment with  $H_2O_2$  and zirconium without this initial treatment. There is yet another method by colorimetry when  $H_2O_2$  in acid medium is used as a reagent to develop yellow coloration. It must, however, be noted that this method can be used only with very dilute solutions.

#### Identification of Problems for further Studies

As can be seen through the survey of literature, there are many aspects to be studied from the point of view of using basic titanium sulphate in the leather industry as a tanning agent. The behaviour of titanium salts towards native as well as modified collagen has not been exhaustively studied. Most of the tanning studies have been conducted using comparatively less cationic titanium, obtaining leathers with lesser hydrothermal stability. Even combination tannages involving chrome and other conventional elements as well as vegetable tannins in admixture with titanium, are not elaborately studied with respect to pretanning, post-tanning, simultaneous tanning of the respective combination systems leading to fixation/stripping properties of



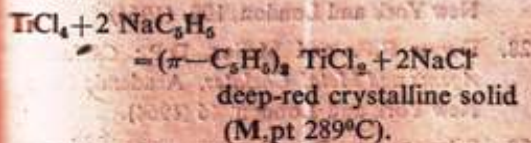


OCTOBER 1978

301

either of the components of the systems taken up for such tannages. The studies in these directions will show the reaction sites of collagen with titanium at various pHs to have a thorough knowledge about the tanning chemistry of titanium salts and combination tanning systems. Complexometric studies of basic titanium solutions using different anions have also not been studied. Investigations of such nature using titanium at convenient basicities will throw more light on the exact behaviour of titanium tanning solutions, during masking, for their eventual use during tanning. Information on the comparative studies of complex nature and thermal stability of such tanning agents chelated with promising anions is also lacking. Studies in these directions will help in choosing the correct tanning system for the combination tannages involving titanium as one of the tanning agents.

Organometallic compounds<sup>32</sup> are formed through direct metal-carbon bonds and compounds containing titanium-carbon bonds have been prepared using both alkyl and aryl compounds with THF as the solvent. To cite an example, stable bis Ti-cyclopentadienyl dihalides are prepared by treating  $\text{TiCl}_4$  in THF with cyclopentadienyl magnesium halides or with cyclopentadienyl sodium or lithium.



It is also possible to prepare compounds of the type  $(\pi\text{C}_5\text{H}_5)_2\text{TiCl}_2\text{O}$ , the X-ray studies of which show that the Ti-O-Ti bridging is linear with short Ti-O

bond lengths of 1.74Å implying the presence of double bonding in the bridge. The triand di-valent states of titanium also exhibit organometallic compounds, but they are unstable and oxidise rapidly in air. Studies in these directions to investigate the functions of such Ti-C linkages during tannage of pelts with a wide range of titanium compounds in suitable solvents may also provide additional information on the subject.

Detailed ion exchange studies do not seem to have been conducted on normal and basic titanium tanning solutions, which will enable the technologist to make use of titanium liquors at the desired concentrations of cationic/anionic/nonionic titanium. Since the basic aspects of chemistry of Ti are not thoroughly investigated, much work has not been done on the behaviour of titanium tanned leathers towards fatliquoring with different types of fatliquors and dyeing with different types of dyes as well as on the properties of leathers tanned with systems containing titanium alone and in combinations. Production of basic Ti tan liquors and extracts with commercially available  $\text{TiO}_2$  as the starting material can also form a part of the studies.

Industrial scale application of titanium as a tanning agent has not been possible so far because of the absence of such in-depth study on the chemistry and technology of titanium. It is hoped that an exhaustive study on the above lines will prove successful and the industry will come forward to make use of yet another white tanning agent—titanium—in the production of different types of leathers having different types of properties.



# References

1. *Chemical Weekly Annual Number XXI* (1976).
2. Chakravorthy, H.P.; and Nursteem, H.E.; *Jour. Int. Soc. Leath. Trades, Chemists* 42, 2 (1958).
3. Motov, D.L.; Konstantinov, V.I.; Rummyantsev, V.G.; Belokoskov, V.I.; Vde.; Babkin, A.G.; Metelkin, A.I.; Suchkov, V.G.; Kovlenikova, N.T. et al. *Chemical Abstracts* 78 (1973) 5431 m.
4. Motov, D.L.; Konstantinov, V.I.; Rummyantsev, V.G.; Belokoskov, V.I.; Vde.; Babkin, A.G.; Metelkin, A.I.; Suchkov, V.; and Kolesnikova, N.I.; *Chemical Abstracts* 76 (1972) 47409z.
5. Nekhamkin, L.G.; Zaitsev, L.M.; Lanbo, L.G.; Safronov; Maiskaya, T. Z.; Metelkin, A.I.; Kolesnikova, N.I.; Suchkov, V.G.; and Babich, I. Ya. *Chemical Abstracts* 78 (1973) 17665 d.
6. Roman, A.S.; Konopelkina, L. V.; and Shkarandha, I.T. *Chemical Abstracts* 83 (1975) 12238 k.
7. Krasnoshlyk, L. N.; *Chemical Abstracts* 84 (1976) 91680 v.
8. Arbuzov, G.A.; Stroselskii, P.I.; and Kuznetsova, Z.I. *Chemical Abstracts* 51 (1957) 13437-8.
9. Magomedov, Sh. Sh.; Levenko, P. I.; Golubyaknikova, A.I.; and Kutyanin, O.I.; *Chemical Abstracts* 82 (1975) 74489 f.
10. Kucherenko, A.A.; (Leningr. Inst. Sov. Torg; Leningrad, USSR), *Chemical Abstracts* 81 (1974) 107379 e.
11. Lawrence, A.C.; *Bull. Cent. Leath. Res. Inst.*, Vol. 7, No. 11, 560, Madras (1960).
12. Metelkin, A. L.; Afonskaya, N.S.; and Shmodia, G.F.; (Tsentr. Nauchno-Issled. Inst. Kozhevennoobuvn. Prom. Moscow, USSR), *Chemical Abstracts* 80 (1974) 61082 b.
13. Andrinaov, K.A.; *Jour. Ameri. Leath. Chemists. Assoc.* 70, 6, 275 (1975).
14. Andrinaov, K.A.; Sidorov, V.L.; Levenko, P.I. and Anpilogova, A.I. (Inst. Elementoorg. Soedin., Moscow, USSR), *Chemical Abstracts* 81 (1974) 154550 p.
15. Currie, C.C.; *Jour. Soc. Leath. Tr. Chem.* 38, 394 (1954).
16. Hagar, I.D.; *Jour. Ameri. Leath. Chem. Assoc.*, 22, 605 (1927).
17. Belavsky, E.; and Termignoni, T. *Indi. Leath. Tech. Assoc.*, 5, 1, 247 (1957).
18. Helene Kelner, S. *Leath. Manufr. No. 6*, 64-65 (1965).
19. Clark, R.J.H.; *The Chemistry of Titanium & Vanadium*, ELSEVIER PUBLISHING COMPANY, AMSTERDAM/LONDON/NEW YORK, P. 11 (1968).
20. Michael Cais, *Progress in coordination chemistry*, Elsevier Publishing Company, Amsterdam/London/New York, 92, p. 13 (1968).
21. Michael Cais, *Progress in Co-ordination Chemistry*, Elsevier Publishing Co., Amsterdam/London/New York, D 55 p. 328 (1968).
22. Michael Cais, *Progress in Coordination Chemistry*, Elsevier Publishing Co., Amsterdam/London/New York, D19 228 (1968).
23. Clark, R.J.H., *The Chemistry of Titanium & Vanadium*, Elsevier Publishing. Co., Amsterdam/London/New York, p. 14 (1968).
24. Dwyer, F.P.; and Mellor, D.P.; *Chelating Agents and Metal Chelates*, Academic Press, New York, and London, 304 (1964).
25. Jones, M.; *Elementary Coordination Chemistry*, Prentice-Hall Inc., Englewood Cliffs, N.J. 211 (1964).
26. Jones, M.; *Elementary Coordination Chemistry*, Prentice-Hall Inc., Englewood Cliffs, N.J. 81 (1964).
27. Dwyer, F.P.; and Mellor, D.P.; *Chelating Agents and Metal Chelates*, Academic Press, New York and London, 100, (1964).
28. Dwyer, F.P.; and Mellor, D.P.; *Chelating Agents and Metal Chelates*, Academic Press, New York and London, 46 (1964).
29. Selvarangan, R.; Bangaruswamy, S; and Nayudamma, Y.; *Complexing Nature of Some Tanning Salts, Symposium on Recent Advance in Mineral Tannages*, Cent. Leath. Res. Inst., Madras, India (1964).





OCTOBER 1978

303

30. Scott, W.W. and Howell Furman N; *Standard Methods of Chemical Analysis*, The Technical Press Ltd., London VI 656, (1939).
31. Obukhova, L.A.; Fedorova, I.M.; and Voit-sekhovskii, V.L. (USSR), Nanch. Issled. Tr. Tsent. Mavch-Issled Inst. Kozhobuv. *Chemical Abstracts* 74 (1971), 14203 h.
32. Clark, R. J. H, *The Chemistry of Titanium & Vanadium*, Elsevier Publishing Company, Amsterdam/London/New York 223 (1968)

### NATIONAL SMALL-SCALE INDUSTRIES FAIR TO BE HELD IN NEW DELHI

The Trade Fair Authority of India has decided to organize, for the first time, a National Small Scale Industries Fair this year between 14th November and 13th December on Pragati Maidan, New Delhi.

The Fair's main objectives are to project the prospects of small-scale and cottage industries in India; the role of technical education in the development of small-scale and cottage industries; the role of State Governments in the development of small-scale and cottage industries; the role of small-scale industries in the country's economic development; and the export potential of small-scale and cottage industries.

The Fair will offer opportunities of display advertisement and information feed-back for the various organizations engaged in the manufacture and development of various goods and services. The Fair will also bring into focus the problems of inter-industry dependence and the scope for exploring new avenues. A special feature of the Fair is that all exhibitors would be allowed to conduct concessional sales across the counter at their respective stalls and pavilions to

publicize their products at the consumer level.

Those interested in participating in the Fair and exhibiting their products may write to the following for further details :

The Managing Director,  
Trade Fair Authority of India,  
Pragati Maidan,  
Lal Bahadur Shastri Marg,  
New Delhi—110 001.

The Leather Export Promotion Council, Madras, is participating in the Fair and its stand will be in the 'Export Pavilion', originally known as Nehru Pavilion-Hall No. 7.

—Leathers

### UNIDO ANNOUNCEMENTS

#### Experts Wanted

Leather-garment manufacturing: Three months. Addis Ababa, Ethiopia, travel within country and to Europe. Explore and analyse the country's potential for manufacturing and marketing leather garments and related articles, and update a previous UNIDO-conducted study. Prepare final report. Current knowledge and extensive experience in designing,

( Continued on page 308 )



### GDP COLLAPSE: 'POLICY PARALYSIS IN THIS GOVERNMENT'



**'It is not simply demonetisation or GST, it is this government's failure to manage the financial sector crisis.'**

"Many, many, people are looking at this as a COVID-related issue. We need to see how the economy has behaved since 2016-2017. There has been a continuous downward slide," former Union finance secretary Dr Arvind Mayaram tells Prasanna D Zore of Rediff.com

#### **What does a GDP contraction of 24 per cent tell you about the state of the Indian economy?**

It's a first quarter (three months of a financial year in India beginning April and ending in June) contraction. Obviously, it only shows that in this current year's first quarter, the economy has shrunk by close to 24 per cent.

Therefore, we need to look going forward what happens in the next three quarters. But the manner in which things are happening (the economy is being managed by this government) I don't expect anything very dramatic happening going forward.

There is no question that it will be better than what it is in the first quarter because of the lockdown.

The economy will close in the current financial year (beginning April 1, 2020 and ending March 31, 2021) at something like a contraction of 9 to 10 per cent, which is negative growth (If

India's GDP growth was Rs 100 in the FY 2019-2020, then in FY 2020-2021 it will grow by Rs 90, that is Rs 10 less than the previous FY, instead of adding to it), which is, of course, the worst that we have seen since 1947.

The problem is that many, many, people are now looking at this only as a COVID-related issue. We need to see how the economy has behaved since (FY) 2016-2017 (demonetisation began on November 8, 2016 and ended December 30, 2016). And there has been a continuous downward slide.

In fact, even before COVID-19, the last year's print for growth, that is (FY) 2019 20, is sub-5 per cent, close to 4.8 per cent, which is again the worst in the last 45 years.

What I'm trying to explain is that what we are seeing as a contraction of 24 per cent is not purely the impact of COVID-19 over here, but the pandemic has only worsened it.

#### **While COVID-19 played a role in the huge demand crash, could this four-decade record contraction also be blamed on demonetisation and later the sloppy implementation of the equally politically loaded Goods and Services Tax?**

Demonetisation has been a terrible disaster as far as the Indian economy is concerned. The poorly designed and implemented GST has further put the last nail in the coffin if I may use that metaphor.

Those two have been fairly bad, but there are other issues. For instance, the government has not been able to really come to grips with the problem of the financial sector.

If you look at the NPAs (banks's non performing assets) or you look at the non-banking finance financial companies crisis, or crisis of the mutual funds — the entire financial sector has been in a grip of a terrible crisis.

This government has failed to find any kind of resolution of that. Therefore, it is not simply demonetisation or GST, but it is its (this government's) failure in being able to manage the financial sector crisis.

If you look at it closely, then there has been a continuous decline in the gross capital formation in the economy. Or if you look at the gross investment rate in the economy, they have all continuously fallen.

Take exports now. Right from 2014 onwards, exports have really done very poorly.

While it is not just domestic issues (why exports have failed to pick up), there are, for instance, trade war issues, the protectionism in various countries, etc.

Having said that, I think there also has been a kind of a policy paralysis. And so, therefore, the government has not been able to come to grips with it on all economic policy parameters.

### **Are you surprised by the 3.4 per cent growth in the agri-sector? What explains this growth?**

I'm not surprised because the agriculture sector growth of between 2.9% and 3.5% is the normal average growth every year. It is not spectacular growth.

What it means is that the rain gods have been kind and therefore agriculture has done as well as it has done in any average year.

What we are thankful to is that the rains didn't fail us and, therefore, agriculture production did not decline.

### **Do you see this sector then offering a ray of hope for the entire financial year considering that we have had a good monsoon till now?**

Once again, you must remember that if you get average agricultural growth in the forthcoming season, which is the kharif season, then there is nothing to celebrate about it. It's not something which is spectacular. So it's not going to really change the fortunes of the Indian economy.

### **Do you see the financial sector crisis worsening further given the expectation that there will be industry-wise loan defaults from MSMEs, SMEs, coupled with retail borrowers defaulting on their loan**

### **commitments further fueling the NPAs in the banking sector?**

It will, it will, because there has been no demand side response from the government.

### **Despite the RBI cutting interest rates by 1.15 per cent...**

(Interrupts) That is the supply side, which means that the entire Rs 21 lakh crore of the so-called Aatma Nirbhar (Bharat Abhiyaan) package, barring the Rs 1.5 lakh crore, which we can say is the fiscal part, rest of it (the Aatma Nirbhar Bharat Abhiyaan) is all loan driven. That is simply (taking care of the) supply side.

Now the question is if there is no demand in the market, if consumption has flattened, then who is going to produce, who is going to buy and if there is no buyer, then there is not going to be any production.

And if there is no production, there will be no jobs. And we have already seen the destruction of jobs which has continued.

According to the CMIE (the Centre for Monitoring Indian Economy), whatever jobs which have come back into the economy are in the non-formal sector, and primarily driven by MGNREGA and the agriculture-sowing season.

### **Could MNREGA have helped the 3.4 per cent growth witnessed in the agriculture sector?**

No. that's not.

MNREGA would have because it permits use of labour days for small and marginal farmers on their own farms.

When they do work on their own farms, kind of improve the land, etc, that is counted and they can book it as MNREGA wages.

To that extent (MNREGA may have contributed), but it's very difficult to quantify how much of it (the 3.4 per cent growth) is actually contribution of MNREGA.

### **Would agricultural growth have been far worse if there were no MNREGA related employment-wages for people in rural India?**

Yes, in the sense that the employment position and hunger of people in the rural economy would have been much worse, because whatever little consumption is happening in the (rural) economy is only because there is certain sustenance in the MNREGA wages in the rural areas.

MNREGA is fueling the (growth) in the rural economy because of the wages they are able to generate from this employment.

### **Can one say then that given the 24 per cent growth contraction in the GDP in the first quarter of this year despite the Modi government's equivalent-to-10 per cent-of-the-GDP-stimulus-package has failed? That it has neither revived demand nor has it helped boost growth?**

It is not a 10 per cent stimulus package. It's an optical illusion.

For the simple reason that fiscal stimulus would have meant that 10 per cent of GDP actually was pumped in as cash into the economy. But which is not what has happened.

It is basically provision of loans which they have made, whereby people can go and borrow from the banks.

But if there is no demand, who is going to borrow?

Why would you borrow when you are not able to repay your earlier loans?

Why would you take more debt on your head and not be able to repay?

### **Do you believe that the economy is showing a V-shaped recovery as mentioned by Chief Economic Advisor Krishnamurthy Subramanian?**

It depends upon how you look at it. While it (the contraction of India's GDP in the first quarter) is minus 24 per cent and in the

second quarter, suppose it goes down to minus 15 per cent (a smaller contraction in the GDP compared to minus 24 per cent), you can call it a recovery, wouldn't you?

So, you can call it a V-shaped recovery or whatever else you want to. At the end of the year if you notch minus 10 per cent growth (for the entire FY), then you can always say that look from minus 25 per cent (growth in the first quarter) we have brought it down to (minus) 10 per cent.

It's a recovery; it is rhetorical.

Recovery means when the economy comes out into the black; when it is no longer in the red.

### **When do you see that happening?**

Real recovery will happen only in 2022; next year we will come out of the red (negative growth). But in the sense of a recovery or in the sense of getting back into the growth of any respectable number we should be looking at (FY) 2022-2023.

### **Given the lockdown across the country and role it played in the collapse of consumption, investment demand, what could be some of those booster doses to revive the economy in the case that a vaccine is found and people start engaging in economic activity without any restrictions?**

The simple question is you need to have money in your hands.

If 80 per cent of MSMEs — as we have seen in Bengaluru as per the statistics I was seeing — have shut down, then who goes out to work?

I think the best and the fastest way was to put cash in the hands of the people.

If they (the Narendra Damodardas Modi government) had done the cash transfers to the poor, just given 5,000 rupees a month or 4,000 rupees a month, for six months or eight months, the people would have been induced to spend and there would have been a virtuous cycle.



If they had given certain financial assistance to the MSMEs for maintaining their wage bills (for paying wages to their employees), people would not have been retrenched from work and they would have then again spent money and consumption would have come back.

There were several ways that could have been used for this (financial assistance to the MSMEs). But that obviously requires a policy initiative and we know there is a policy paralysis (in this government).

**Given the contraction now, would you believe that this government will actually start giving cash into the hands of the people to stimulate demand?**

I don't know.

**Wouldn't that be a prudent way of bringing demand back in the economy?**

We haven't seen government thinking on those lines, so it's difficult to predict.

**Do you expect another major fiscal stimulus or stimulus package coming from the finance minister?**

I hope so, but I don't think that will happen.

Also, when you say another fiscal package or stimulus package, where was the first one?

I don't see that happening because as it is (this government is not) even (paying the) GST compensation that ought to have been paid to the state governments.

The central government has now said that the state governments should go and borrow. It is a travesty because this is actually like reneging on a sovereign promise.

The state governments gave up their powers under the Constitution to collect taxes to the central government with this understanding that they will be compensated by the central government (for the shortfall in their revenues under the new GST regime).

But the central government is now refusing to do so. So this (contraction of GDP by 24 per cent) is actually due to a major crisis of confidence and trust.

**Which state government will now believe in the central government's word?**

With this kind of an indication, I don't think the central government is thinking of any fiscal stimulus or 'another' stimulus package as such.

(Source : Rediffmail.com – 01/11/2020)

**BANKS NOT TO MAKE ANY DIVIDEND PAYMENT FOR FY20; TOLD TO RETAIN PROFIT**



In view of the economic shock caused by the COVID-19 pandemic, Reserve Bank of India (RBI) on Friday asked scheduled commercial banks and co-operative banks not to make any dividends for the financial year ended March 2020.

In view of the ongoing stress and the heightened uncertainty on account of the pandemic, RBI said it is imperative that banks continue to conserve capital to support the economy and absorb losses, if any.

The decision is based on review of the September quarter financial performance of banks.

In response to the pandemic, RBI has focused on resolution of stress among borrowers, and facilitating credit flow to the economy, while ensuring financial stability, RBI Governor Shaktikanta Das said.

"In continuation of this effort and to help banks conserve capital, while creating room for fresh lending, it has been decided after a review that commercial and co-operative banks will retain the profits and not make any dividend pay-out from the profits pertaining to financial year 2019-20," he said.

Guidelines on the above measure will be issued shortly.

In April, RBI had announced that scheduled commercial banks (SCBs) and cooperative banks shall not make any dividend payouts from profits pertaining to the financial year ended March 31, 2020, until further instructions, which shall be reassessed based on financial results of banks for the quarter ending September 30, 2020.

Unlike banks, RBI said, currently there are no guidelines in place with regard to distribution of dividend by non-banking financial companies (NBFCs).

"Keeping in view the increasing significance of NBFCs in the financial system and their interlinkages with different segments, it has been decided to formulate guidelines on dividend distribution by NBFCs.

"Different categories of NBFCs would be allowed to declare dividend as per a matrix of parameters, subject to a set of generic conditions. A draft circular in this regard will be issued shortly for public comments," he said.

RBI further said the ombudsman mechanism instituted by the Reserve Bank is an alternate grievance redress mechanism. "With a view to enhancing the efficacy of the grievance redress mechanism in banks, it has been decided to put in place a comprehensive framework comprising inter alia (i) enhanced disclosures on customer complaints, (ii) monetary disincentives in the form of recovery of cost of redress of complaints, and (iii) undertaking intensive review of grievance redress mechanisms and supervisory action against regulated entities failing to improve their redress mechanisms," he said.

The framework would be put in place during January 2021, RBI said.

(Source : *Economic Times* – 30/11/2020)

### WE MUST HAVE JUST 2 RATES OF INCOME TAX



10 per cent for those who earn up to Rs 30 lakh a year and 25 per cent for those who earn more, suggests T C A Srinivasa-Raghavan. *Business Standard's* Budget encyclopaedic archivist A K Bhattacharya says India has had 29 finance ministers since 1947.

He also says that there has been only one finance minister, K C Neogy in 1949, who didn't present a Budget because he was in office for only a month. He left the Congress with Syama Prasad Mookerjee.

Three of these 29 finance ministers — Nehru, Indira Gandhi and Rajiv Gandhi — were prime minister also when they presented one Budget each.

Four finance ministers — Morarji Desai, Charan Singh, V P Singh and Manmohan Singh — went on to become prime minister.

There was one more Singh — Jaswant — but there have been six Tamils, so there!

However, only five of Nirmala Sitharaman's predecessors have had to deal with highly unusual circumstances. This article is about how they coped.

Briefly, four hit their way out of trouble. They changed the mood in the country dramatically for the better. Only the one in 1957 messed up.

I should add here that what Ms Sitharaman is coping with now is a crisis which in its intensity is the sum of all previous crises.



### Crisis Budgets

**1947:** This first post-Partition Budget was presented on November 20, 1947. It was almost entirely devoted to the Railways! God knows what the government was thinking.

**1957:** This was the first post-Aavadi Congress Budget. The crisis was low growth, high inflation, and rapidly melting sterling balances.

To deal with it, the Congress decided at Aavadi to capture the 'commanding heights' of the economy and invest in heavy industry. So it raised taxes steeply to fund the Second Five-Year Plan.

**1970:** This was the first Budget after six major crises: The 1962 War with China, the 1965 War with Pakistan, the two droughts of 1965 and 1966, the devaluation of 1966, and the Congress split in 1969. So in 1970, Prime Minister Indira Gandhi presented her only Budget.

It was a blueprint for a huge expansion of the State's involvement in the economy. This completely changed the mood of the country. The voters were very happy that the rich were being soaked.

**1985:** This Budget came after the brutal assassination of Indira Gandhi in October 1984. V P Singh, as finance minister, cut taxes and tariffs, eased industrial licensing, and shyly looked to the markets for efficient resource allocation. He also went in for massive deficit financing, which resulted in the BoP crisis of 1991.

**1991:** This was the first post-BoP crisis Budget in which the finance minister, Manmohan Singh, devalued the rupee massively, mostly abolished industrial licensing, and slashed export subsidies.

Customs duties and excise duties both were cut, direct taxes were rationalised, and foreign investment was given an unmistakable come-hither invitation. The mood turned euphoric.

### Now what?

A similar opportunity has once again arisen for the 2021 Budget to change the disk-operating system of the country. It must not be missed.

The starting point, I think, has to be to restore to the Budget its economic aspect, which it lost in 1970. Redistribution must cease to be its focus because that's what has turned it into an instrument of politics, and a failed one at that.

To change the basic approach, the government must explicitly recognise that a country needs the rich and the well-off because it is they who spend, save, and invest.

The post-1970 persecution of these drivers of growth must stop once and for all. Towards this end, the personal income tax must be reduced, just as corporate income tax has been.

Let me also give you an absurd and shameful statistic here. Revenue from corporate taxes is only a whisker more than revenue from personal income tax. The ratio is 52 and 48 per cent.

Not just this: Whatever revenue the government gets from personal income tax, about Rs 6.4 lakh crore budgeted this year, it spends more than that on paying the salaries of its largely negative productivity employees and the pensions of persons who, by definition, contribute nothing.

What's worse, it borrows heavily to pay these bills. Talk about crowding out. The forthcoming Budget, if it wants to rekindle growth on a sustained basis, must leave far more income in the hands of the rich and well-off than it does now.

We must have just two rates of income tax: 10 per cent for those who earn up to Rs 30 lakh a year and 25 per cent for those who earn more.

If Manmohan Singh could exhort us in July 1991 to forget about the East India Company, Ms Sitharaman needs to forget about Nehruvian taxation.

*(Source : Business Standard – 03/12/2020)*

### INCOME TAX RETURN FILING DEADLINE: HERE IS EVERY IMPORTANT LAST DATE, EXTENSION DETAILS FROM FINANCE MINISTRY



In one of the biggest developments in terms of money matters and personal finance, the government on Wednesday extended the deadline to file income tax return (ITR) for individuals by 10 days to January 10, 2021. The deadline for filing tax returns by businesses too has been extended till February 15, the finance ministry said in a statement. The finance ministry said the extension in various deadline was given in view of the continued challenges faced by taxpayers in meeting statutory compliances due to the outbreak of COVID-19.

**Here are all the details from Finance Ministry's statement:-**

#### ITR FILING DEADLINE :

The extension of the deadline till January 10 is for filing ITR for 2019-20 fiscal year (2020-21 assessment year) and is for those individuals whose accounts are not required to be audited and who usually file their income tax return using ITR-1 or ITR-4 forms, as applicable, the finance ministry statement said.

-The deadline for other taxpayers whose accounts are required to be audited (including partners of a firm) and/or those who

have to submit report in respect to international financial transactions has been extended to February 15, 2021.

#### GST 2019-20

-Besides, the date for filing GST annual return for 2019-20 fiscal has been extended by two months till February 28, 2021.

#### ITR FILING FOR COMPANIES

-For companies, the date was extended from October 31 to November 30 and then to January 31, 2021. This has now been extended till February 15.

#### VIVAD SE VISHWAS

-Also, the due date for filing declaration under the direct tax dispute resolution scheme Vivad Se Vishwas has been extended by a month till January 31.

#### 3rd TIME EXTENSION

-This is the third time that the government has extended the deadline to file ITR — first from the normal deadline of July 31 to November 30, 2020, and then to December 31, 2020.

-At the close of deadline for filing ITRs without payment of late fees for fiscal 2018-19 (assessment year 2019-20), over 5.65 crore returns were filed by taxpayers.

ITR 2019-20: International/specified domestic transactions

The due date for furnishing of ITR for 2019-20 fiscal for taxpayers who are required to furnish report of international/specified domestic transactions has also been extended till February 15.

#### Tax audit report

-The date for filing tax audit report too has been extended to January 15.

#### Payment date: Self-assessment tax for taxpayers

The date for payment of self-assessment tax for taxpayers whose tax liability is up to Rs 1 lakh has been extended to January 10 and February 15 for various categories of taxpayers.

### -: JILTA :-

**Owner:** Indian Leather Technologists' Association, **Publisher & Printer:** Mr. S. D. Set, **Published From:** 'Sanjoy Bhavan', (3<sup>rd</sup> floor), 44, Shanti Pally, Kasba, Kolkata - 700107, West Bengal, INDIA and **Printed From:** M/s TAS Associate, 11, Priya Nath Dey Lane, Kolkata- 700036, West Bengal, INDIA



# ILTA PUBLICATION

Now available



Title of the Book  
Treatise on Fatliquors and  
Fatliquoring of Leather

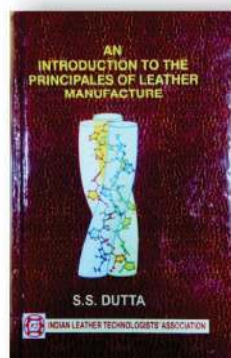
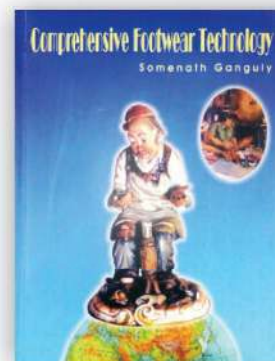
Author  
Dr. Samir Dasgupta

Price per copy\*  
₹ 1500.00 / \$ 60.00

Title of the Book  
Comprehensive  
Footwear Technology

Author  
Mr. Somenath Ganguly

Price per copy\*  
₹ 500.00 / \$ 50.00



Title of the Book  
An Introduce to the  
Principles of Leather  
Manufacture

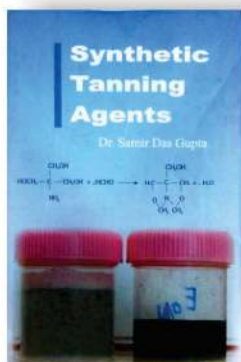
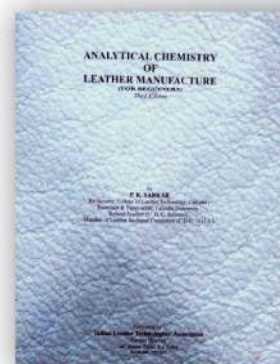
Author  
Prof. S. S. Dutta

Price per copy\*  
₹ 800.00 / \$ 50.00

Title of the Book  
Analytical Chemistry of  
Leather Manufacture

Author  
Mr. P. K. Sarkar

Price per copy\*  
₹ 300.00 / \$ 10.00



Title of the Book  
Synthetic Tanning  
Agents

Author  
Dr. Samir Dasgupta

Price per copy\*  
₹ 900.00 / \$ 30.00

Title of the Book  
Hand- Book of Tanning

Author  
Prof. B. M. Das

Price per copy\*  
₹ 750.00 / \$ 25.00



\*Packing and forwarding charge extra

Send your enquiries to :

**Indian Leather Technologists' Association**

'Sanjoy Bhavan', 3rd Floor, 44, Shanti Pally, Kolkata- 700 107, WB, India

Phone : 91-33-2441-3429 / 3459 Telefax : 91-33-2441-7320

E-mail : admin@iltaonleather.org; mailto:ilta@redimail.com

Website : www.iltaonleather.org



# History and Activities of Indian Leather Technologists' Association

The Indian Leather Technologists' Association (ILTA) was founded by Late Prof. B. M. Das, the originator of Das-Stiasny theory and father of Indian Leather Science on 14<sup>th</sup> August 1950.

The primary objectives of the oldest Leather Technologists' Association which celebrated its Diamond Jubilee year in the 2010, are:

- ❖ To bring all concerned with the broad spectrum of the leather industry under one umbrella.
- ❖ To organize seminar, symposium, workshop in order to create information, knowledge and latest development for the benefit of all concerned. To offer a common platform for all to interact with each other in order to understand each other's problems and prospects.
- ❖ To publish monthly journal as a supplement to those above objectives. The monthly journal of ILTA is known as journal of Indian Leather Technologists' Association and is the most widely circulated technical journal concerning leather technology.
- ❖ To publish text books for the benefit of students at various levels of study, for the researchers and industry.
- ❖ To have interface between urban and rural sector.
- ❖ To assist Planning Commission, various Government Institutions, Ministry and autonomous bodies to formulate appropriate policies acceptable and adoptable to the industry.
- ❖ To organize practical training and to provide skilled manpower and to motivate good students for study.
- ❖ To conduct activities related to the growth of the export of leather and leather goods from India.
- ❖ As the part of many social activities ILTA has donated Rs. 1 lac to Consul General of Nepal towards relief of earthquake effected of Nepal on 15<sup>th</sup> Sept, 2015.

## INTERNATIONAL & NATIONAL SEMINAR

- ❖ ILTA is the Member Society of International Union of Leather Technologists & Chemists Societies (IULTCS), a 115 years old organization and for the first time the IULTCS Congress was organized in January 1999 outside the developed countries in India jointly by ILTA and CLRI.
- ❖ 2017 IULTCS Congress is scheduled to be held in India again.
- ❖ 8<sup>th</sup> Asian International Conference on Leather Science & Technology (AICLST) was organized by ILTA in 2010 during its Diamond Jubilee Celebration year.

## SEMINAR & SYMPOSIUM

ILTA organizes Seminar & Symposiums on regular basis to share information, knowledge & latest development and interactions for the benefit of all concerned. Few are as under:

- ❖ Prof. B. M. Das Memorial Lecture every year during the Foundation Day Celebrations on 14<sup>th</sup> August every year.
- ❖ Sanjoy Sen Memorial Lecture on 14<sup>th</sup> January every year, the birthday of our late President for several decades.
- ❖ Prof. Moni Banerjee Memorial Lecture on 15<sup>th</sup> March every year, the birthday of this iconic personality.
- ❖ Seminar on the occasion of India International Leather Fair (IILF) at Chennai in February every year.

It has also organized:

- ❖ Prof. Y. Nayudumma Memorial Lecture.
- ❖ Series of Lectures during "Programme on implementing Emerging & Sustainable Technologies (PriEST)".
- ❖ Seminars in occasion of India International Leather Fair, 2014 and 2015 at Chennai etc. Many reputed scientists, industrialists and educationists have delivered these prestigious lectures. Foreign dignitaries during their visits to India have addressed the members of ILTA at various times.

## PUBLICATION

ILTA has published the following books:

- ❖ An Introduction to the Principles of Physical Testing of Leather by Prof. S. S. Dutta
- ❖ Practical Aspects of Manufacture of Upper Leather by J. M. Dey
- ❖ An Introduction to the Principles of Leather Manufacture by Prof. S. S. Dutta
- ❖ Analytical Chemistry of Leather Manufacture by P. K. Sarkar
- ❖ Comprehensive Footwear Technology by Mr. Somnath Ganguly
- ❖ Treatise on Fatliquors and Fatliquoring of Leather by Dr. Samir Dasgupta
- ❖ Synthetic Tanning Agents by Dr. Samir Dasgupta
- ❖ Hand Book of Tanning by Prof. B. M. Das

ILTA has a good Library & Archive enriched with a few important Books, Periodicals, Journals etc.

## AWARDS OF EXCELLENCE

- ❖ ILTA awards Prof. B. M. Das Memorial, Sanjoy Sen Memorial, J. M. Dey Memorial and Moni Banerjee Memorial Medals to the top rankers at the University / Technical Institute graduate and post graduate levels to encourage the brilliants to evolve with the Industry.
- ❖ J. Sinha Roy Memorial Award for the author of the best contribution for the entire year published in the monthly journal of the Indian Leather Technologists' Association (JILTA).

## LEXPOs

To promote and provide marketing facilities, to keep pace with the latest design and technology, to have better interaction with the domestic buyers, ILTA has been organizing LEXPO fairs at Kolkata from 1977, Siliguri from 1992 and Durgapur from 2010. To help the tiny, cottage and small-scale sectors industries in marketing, LEXPO fairs give the exposure for their products. Apart from Kolkata, Siliguri & Durgapur, ILTA has organized LEXPO at Bhubaneswar, Gangtok, Guwahati, Jamshedpur and Ranchi.

## MEMBERS

The Association's present (as on 31.03.2018) strength of members is more than 600 from all over India and abroad. Primarily the members are leather technologists passed out from Govt. College of Engineering & Leather Technology, Anna University, Chennai, Harcourt Butler Technological Institute, Kanpur, B. R. Ambedkar National Institute of Technology, Jalandhar and Scientists from Central Leather Research Institute.

## ESTABLISHMENTS

In order to strengthen its activities, ILTA have constructed its own six storied building at 44, Shanti Pally, Kasba, Kolkata - 700 107 and have named it "Sanjoy Bhavan".

This Association is managed by an Executive Committee duly elected by the members of the Association. It is absolutely a voluntary organization working for the betterment of the Leather Industry. None of the Executive Committee members gets any remuneration for the services rendered but they get the satisfaction of being a part of this esteemed organization.



ILTA

Since 1950

## Indian Leather Technologists' Association

[A Member Society of International Union of Leather Technologists' and Chemists Societies]

'Sanjoy Bhavan', 3rd Floor, 44, Shanti Pally, Kolkata- 700 107, WB, India

Phone : 91-33-2441-3429 / 3459 Telefax : 91-33-2441-7320

E-mail : admin@iltaonleather.org; mailtoilta@redimail.com

Website : www.iltaonleather.org