

A promotional poster for a Hitachi webinar. The background is dark with a blurred image of laboratory glassware. At the top, the word 'HITACHI' is in large, white, bold capital letters. Below it, 'WEBINAR' is also in large, white, bold capital letters. The title 'Titration Application in Electroplating Industry' is in white, followed by the subtitle 'Hiranuma Titrators Ensures Quality of Electroplating'. Underneath, 'Our Speakers' is written. Two circular portraits of speakers are shown: Dr. N Hari on the left and Sandeep Rane on the right. Below each portrait is their name and title. At the bottom left, there is a calendar icon, the date 'NOVEMBER 11, 2025', and the time '11:00 AM ONWARDS'. Below that is a phone icon with the number '+91-74286 20011' and a globe icon with the URL 'https://www.hitachi-hightech.com/in/en/'. On the right side, there is a QR code and the text 'SCAN TO REGISTER'.

We would like to introduce our **Hitachi-Hiranuma Automatic Titrators** to you as a preferred solution for chemical analysis.

Since founded in 1943, Hiranuma Co Ltd. always aimed to contribute to society through high-quality analytical instruments.

Made in Japan with Pride in Tradition and Technology.

An auto titrator automates the traditional titration process by using a motorized dispenser to add a reagent (**titrant**) to a sample, an electrode to detect the endpoint, and a microprocessor to calculate the results. This automation increases accuracy, reproducibility, and efficiency by removing human error, speeding up analysis, and freeing up lab personnel for other tasks.

Compared to manual titration, Hiranuma automatic titration analyses have superior advantages as follows:

- **No personal error**
- **Improving measurement precision**
- **Automatic calculation**
- **Faster analysis times**
- **Maintaining records etc...**

Please join Dr. Hari, Technical Director with more than 30 yrs of analytical Field Experience to learn how we can ensure your Plating quality with Hiranuma Titrators.

Typical Applications in Electroplating

	Plating solution	Analytical component
1 2 3 4	Nickel plating solution	H ₃ BO ₃ NiCl ₂ H ₃ BO ₃ , NiCl ₂ Total Ni
5	Electroless nickel plating solution	Sodium hypophosphite(NaPH ₂ O ₂)
6	Zinc plating solution	Zn
7 8 9 10	Copper plating solution	H ₂ SO ₄ Cu Cl ⁻ CuSO ₄
11	Electroless copper plating solution	NaOH, formalin
12	Chrome plating solution	Chromic anhydride(CrO ₃) , Trivalent chromium(Cr ³⁺)



HITACHI



PLATING SOLUTION

ZINC SILVER GOLD NICKEL COPPER CHROME

HIRANUMA TITRATOR

COM-A19



FOUR TYPES OF PARALLEL TITRATIONS

- 8.4 inch Touch panel
- USB Lan port- 9900 Result storage
- User Log in & Control
- In Built thermal Printer

COM-28S



up to 3 BURETTE CONNECTION

- 4.3 inch Touch Panel
- 3 Different Sequential Analysis
- Photometric Titration
- Sample Changer connection