# North America Electrochemical Transformation Market, Opportunity, Growth Drivers, Industry Trend Analysis and Forecast, 2024-2032

Market Report | 2024-08-23 | 75 pages | Global Market Insights

**AVAILABLE LICENSES:**

- Single User $3250.00
- Multi User $3750.00
- Enterprise User $5750.00

**Report description:**

North American electrochemical transformation market was valued at USD 572.3 million in 2023 and is anticipated to grow at a CAGR of 8.5% from 2024-2032. This growth is driven by advancements in energy storage, environmental sustainability, and industrial efficiency. The increasing use of electrochemical reactors in green hydrogen production, particularly in water electrolysis, will further bolster the industry. The industry is set for substantial growth due to the deployment of electrochemical reactors in renewable energy storage solutions like batteries and supercapacitors. The global push for carbon-neutral technologies is spurring R&D in CO2 reduction. For instance, in September 2023, Pulsenics Inc. from Canada, in collaboration with BioLargo Water and backed by Next Generation Manufacturing Canada (NGen), introduced a system that assesses electrode performance in electrochemical water treatment reactors five times faster.

The overall North America electrochemical transformation industry is classified based on the process type, application, and region. Market segmentation by process type includes electrochemical oxidation, electrochemical reduction, and electrosynthesis of chemicals. The electrochemical reduction segment is forecasted to exceed USD 420 million by 2032, driven by its role in CO2 reduction and advancements in catalyst development, especially with nanomaterials and innovative electrode designs. This growth is further supported by the increasing regulatory pressures to lower carbon emissions and the transition towards sustainable chemical processes. Additionally, the integration of renewable energy sources, such as solar and wind, into electrochemical systems is expected to bolster the adoption of electrochemical reduction technologies.

Applications span pharmaceuticals, fine chemicals, chemical manufacturing, energy storage, and conversion. The chemical manufacturing segment is set to grow at over 8% from 2024 to 2032, driven by electrification in chemical synthesis and advancements in electrode materials and catalysts. Increased government funding for sustainable chemical production and a shift towards circular economy practices are key drivers accelerating this trend. Furthermore, collaborations between chemical manufacturers and technology providers are expected to enhance process efficiencies and reduce operational costs in chemical manufacturing.

The U.S. market is projected to exceed USD 800 million by 2032, fueled by advancements in electrocatalysis and supportive administrative initiatives. Government bodies are prioritizing research in electrochemical technologies. For instance, in May 2023,

Argonne National Laboratory and the University of Illinois Chicago co-hosted the Next Generation Electrochemistry (NGenE) event to attract emerging scientists to the expanding electrochemical field. As electrochemical solutions align with the nation's decarbonization strategy, the industry's landscape is set to flourish.

**Table of Contents:**

# North America Electrochemical Transformation Market, Opportunity, Growth Drivers, Industry Trend Analysis and Forecast, 2024-2032

Market Report | 2024-08-23 | 75 pages | Global Market Insights

To place an Order with Scotts International:

- - Print this form
- - Complete the relevant blank fields and sign
- - Send as a scanned email to support@scotts-international.com

**ORDER FORM:**

| Select license | License | Price |
|---|---|---|
| | Single User | $3250.00 |
| | Multi User | $3750.00 |
| | Enterprise User | $5750.00 |
| | VAT | |
| | Total | |

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

| | | | |
|---|---|---|---|
| Email* | | Phone* | |
| First Name* | | Last Name* | |
| Job title* | | | |
| Company Name* | | EU Vat / Tax ID / NIP number* | |
| Address* | | City* | |
| Zip Code* | | Country* | |
| | | Date | 2025-05-13 |
| | | Signature | |